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[redacted]

MEMORANDUM FOR THE CHIEF OF STAFF

SUBJECT: Basic Policy Concerning SAMOS

1. In order to enhance the achievement of the desired goals at the earliest date and for the reasons we have discussed, I believe that it is necessary that there be a recognition within the Air Staff and the various Commands of the following features of the revised SAMOS program:

a. The program should be regarded as an R&D program aimed at the exploitation of various promising reconnaissance techniques.

b. This R&D program nevertheless will include all the necessary elements to insure that the data which is obtained can be efficiently and promptly exploited.

c. The nature and character of an ultimate operational system is completely conditioned upon the success of the methods which will be exploited in the R&D program. Accordingly, effective operational planning cannot be accomplished at this time.

2. In our review of the entire effort it has become abundantly clear that major resources are being expended in directions which bear little or no connection with the new direction of the R&D program. There is a startling lack of knowledge and familiarity with the re-oriented program. Many unfortunate remarks were made publicly and reported in the press. These only serve to make the accomplishment of our goals more difficult. I have discussed with General Luchman the details of a public relations plan which would tend to promote the most favorable climate for the full development of this capability. It is essential that the staff and the commands be informed as to our policy in this regard.

3. In view of the major effort now being expended in misdirected fashion I think it is essential to eliminate the obsolete documentation in regard to SAMOS and to reissue at a later date when clear direction can be given. Specifically, I would recommend the following:

a. SAMOS for the time being should not be included in the Program Documents (example: PG, PD) described in AFM 27-1.

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b. SAMOS project information will be furnished as necessary for legislative matters and for your Policy Book by the Director of the Office of Missile and Satellite Systems.

c. The Director of the Office of Missile and Satellite Systems will have the responsibility to keep key elements of the Air Staff and the commands completely informed as to the program. Normal monitoring by the Weapons Board system is unnecessary and no reviews or analyses should be undertaken by the various groups, panels, boards and committees.

d. Documents reflecting Air Force requirements for reconnaissance should continue to be prepared and should be submitted to the USIB for consideration in SAMOS project requirements.

e. The SAMOS Working Group should be dissolved.

4. I believe that the above is necessary in order to eliminate wasted effort and to insure that the reorientation of the program is effectively accomplished.

(Signed)
JOSEPH V. CHARYK
Under Secretary of the Air Force

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SECRETARY OF THE AIR FORCE
ORDER NO. 116.1

Nov 20, 1961

SUBJECT: The Director of Special Projects

1. Effective this date, Major General Robert E. Greer is designated as Director of Special Projects, Office Secretary of the Air Force, with additional duty as Vice Commander, Air Force Space Systems Division, Air Force Systems Command, with duty station at 2400 East El Segundo, El Segundo, California.

2. The Director will organize an office to manage designated space projects. The number of manpower spaces will be provided by my staff. Additional manpower spaces for the office will be drawn from resources available to the Air Force Systems Command. The Director and his key personnel will constitute a field extension of the Office Secretary of the Air Force.

3. The Director is responsible to and will report directly to the Secretary of the Air Force, and will manage and conduct designated projects exclusively in accordance with guidance received from this office.

4. Secretary of the Air Force Order No. 116.1 dated August 31, 1960 is hereby superseded.

/s/ Eugene M. Zuckert
Secretary of the Air Force

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FM SAFMSWASH DC
TO SAFSP LOASA CAL
BT
/~~SECRET~~/SAFMS-INS-60-31 PD
FOR COL KING. THE MEMORANDA RELATING TO THE DISPOSITION OF SUBSYSTEM I SIGNED BY DR. CHARYK ON 4 NOV 60 ARE QUOTED.
QUOTE
MEMO FOR THE DIR OF THE SAMOS PROJECT

IN ACCORDANCE WITH THE DECISION AT THE RECENT REVIEW OF THE SAMOS PROJECT AT THE HIGHEST NATIONAL LE VEL, AND THE ASSOCIATED RE-DIRECTION OF THE PROJECT EMPHASIS FROM DOUT TYPE SYSTEMS TO RECOVERY TYPE SYSTEMS, IT HAS BEEN RECTED THAT THE SUBSYSTEM I DEVELOPMENT BE CUT BACK VERY BSTANTIALLY. AFTER CAREFUL REVIEW OF THE PRESENT SCOPE D STATUS OF SUBSYSTEM I, I HAVE CONCLUDED THAT THE BEST URSE OF ACTION IS TO TERMINATE PROMPTLY THE FURTHER EVELOPMENT OF SUBSYSTEM I, AND TO PROVIDE SEPARATELY FOR THE PROCESSING EQUIPMENT NEEDS OF THE REVISED SAMOS PROJECT. [redacted] ACCORDINGLY, YOU ARE DIRECTED TO STOP IMMEDIATELY ALL WORK ON SUBSTSTEM I EXCEPT AS PROVIDED BELOW.

IN ORDER TO DETERMINE THE FINAL DISPOSITION OF THE EQUIPMENT ALREADY DEVELOPED, I HAVE REQUESTED THE CHIEF OF STAFF TO ARRANGE FOR THIS EQUIPMENT TO BE EVELUATED AS A DATA CATALOGING, STORAGE, AND RETRIEVAL SYSTEM. THIS EVELUATION WILL BE CONDUCTED BY ARDE, BUT FUNDED FROM THE SAMOS PROJECT UNDER YOUR OVERALL COGNIZANCE. THE FINAL REPORT OF THIS EVELUATION WILL CONTAIN RECOMMENDATIONS FOR FINAL DISPOSITION OF THIS EQUIPMENT.

IN STOPPING THIS DEVELOPMENT, YOU ARE AUTHORIZED TO PROVIDE FOR COMPLETION OF A FEW COMPONENTS THAT ARE PARTIALL BUT NOT FULLY FABRICATED, WHERE YOU DETERMINE THAT SUCH ACTION IS CLEARLY WITHIN THE BEST INTEREST OF THE AIR FORCE. I DESIRE AN ACCOUNT OF ALL SUCH ACTION AS SOONAS POSSIBLE, TOGEATHER WITH YOUR SPECIFIC RECOMMENDATIONS FOR DISPOSITION OF ALL SUBSYSTEM I EQUIPMENT NOT NEEDED IN THE EVELUATION MENTIONED ABOVE.

AS SOON AS POSSIBLE, YOU WILL SUBMIT A REVISED SAMOS DEVELOPMENT PLAN TO INCLUDE PROVISION FOR THE PROCESSING EQUIPMENT NEEDS OF THE REVISED SAMOS PROJECT. SIGNED JOSEPH V CHARYK ACTING SECT OF THE AIR FORCE 1 INCLOSURE MEMO FOR THE
QUOTE

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ENCLOSURE ONE
QUOTE
MEMO FOR THE CHIEF OF STAFF

AS A RESULT OF THE RECENT REVIEW OF THE SAMOS PROJECT AT THE HIGHEST NATIONAL LEVEL , AND THE ASSOCIATED RE-DIRECTION OF PROJECT EMPHASIS FROM READOUT TYPE SYSTEM TO RECOVERY TYPE SYSTEMS, IT HAS BEEN DIRECTED THAT THE EXTENSIVE DATA PROCESSING DEVELOPMENT KNOWN AS SUBSYSTEM I BE CUT BACK VERY SUBSTANTIALLY. AFTER A CAREFUL EXAMINATION OF THE PRESENT SCOPE AND STATUS OF SUBSYSTEM I, I HAVE CONCLUDED THAT THE BEST COURSE OF ACTION IS TO TERMINATE FURTHER DEVELOPMENT PROMPTLY AND TO PROVIDE SEPARATELY FOR THE PROCESSING EQUIPMENT NEEDS RESULTING FROM THE REORIENTED SAMOS PROJECT. ACCORDINGLY, I HAVE INSTRUCTED THE DIRECTOR OF THE SAMOS PROJECT TO STOP ALL WORK ON SUBSYSTEM I AND TO INITIATE SEPARATE ACTION TO PROVIDE FOR SAMOS PROCESSING NEEDS.

ALTHOUGH THE SUBSYSTEM I EQUIPMENT WILL NOT BE USEFUL FOR THE REORIENTED SAMOS PROJECT, IT MAY HAVE UTILITY AS A DATA CATALOGING, STORAGE, AND RETRIEVAL SYSTEM. IN ORDER THAT THE FINAL DISPOSITION OF THIS EQUIPMENT MAY BE DETERMINED, I DESIRE THAT AN ACCELERATED TEST BE MADE OF ITS POSSIBLE UTILITY IN THIS REGARD. PLEASE ARRANGE FOR SUCH A TEST AS FOLLOWS CLN

THE EVELUATION SHOULD BE CONDUCTED BY ARDC WITH PARTICIPATION OR OBSERVATION BY MEMBERS OF INTERESTED ORGANIZATIONS. THE EVELUATION SHOULD BE DESIGNED SOLELY TO DETERMINE THE USEFULNESS OF THIS EQUIPMENT AS A DATA CATALOGINE, STORAGE, AND RETRIEVAL SYSTEM, AND SHOULD RESULT IN SPECIFIC RECOMMENDATIONS FOR FINAL DISPOSITION OF THE EQUIPMENT. THERE WILL BE NO FURTHER DEVELOPMENT OF THE EQUIPMENT DURING THE TEST. ANY FURTHER DEVELOPMENT WHICH MAY APPEAR DESIRABLE AS A RESULT OF THE TEST WILL BE JUSTIFIED AND SUPPORTED BY THE INTERESTED ORGANIZATION THROUGH NORMAL CHANNELS. FURTHER, THE EVELUATION SHOULD NOT EMPHASIZE HUMAN FACTORS STUDIES OR PHOTO INTERPRETATION AND ANALYSIS, AS WAS THE CASE IN THE PROPOSED SUBSYSTEM I SIMULATION PROGRAM.

[redacted]

ILLEGIBLE

A PLAN FOR THIS ACCELERATED EVELUATION SHOULD BE PREPARED BY ARDC WITH THE ASSISTANCE OF POSSIBLE INTERESTED USERS, SUCH AS INTELLIGENCE, AIR WEATHER SERVICE, AMD, ETC., AND SUBMITTED TO MY OFFICE FOR APPROVAL BY 14 DEC 60. THE

EVALUATION SHOULD BE COMPLETED, ANDTHE FINAL REPORT WITH SPECIFIC RECOMMENDATIONS FOR DISPOSITION OF THE EQUIPMENT SUBMITTED TO MY OFFICE BY 4 APRIL 1961.

THE EVALUATION WILL BE FUNDED FROM THE SAMOS PROJECT AND WILL BE MONITORED BY THE SAMOS MANAGEMENT STAFF.
SIGNED . JOSEPH V CHARYK ACTING SECT OF THE AIR FORCE UNQUOTE
BT

Proposals for disposition of Equipt due to SAF by 4 April 61.

~~FOR OFFICIAL USE ONLY~~

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON 25, D.C.

REPLY TO ATTN OF: AFCSS

SUBJECT: Missile and Satellite Systems

14 October 1960

TO: DEPUTIES, DIRECTORS, AND CHIEFS OF COMPARABLE OFFICES (NO. 15)

1. The Secretary of the Air Force has established:

a. An Office of Missile and Satellite Systems (SAFMS) in the Office of the Secretary of the Air Force to assist him in discharging his responsibility for the direct supervision and control of the SAMOS Project. The Director will provide the Executive Secretariat for the Air Force Ballistic Missile Committee. The Director, SAFMS, is responsible for maintaining liaison with the Office of the Secretary of Defense and other interested government agencies on matters relative to his assigned responsibilities. He may be assigned additional duties as deemed appropriate by the Secretary of the Air Force. Brigadier General Richard D. Curtin has been designated as Director of this office.

b. A Directorate of the SAMOS Project (SAFSP) at AFBMD as a field extension of the Office of the Secretary of the Air Force responsible to and reporting directly to the Secretary for management of the SAMOS Project. Brigadier General Robert E. Greer has been designated as Director with additional duty as Vice Commander for Satellite Systems, AFBMD, ARDC, with duty station at 2400 East El Segundo Blvd., El Segundo, California.

c. A Satellite Reconnaissance Technical Advisory Group and a Satellite Reconnaissance Advisory Council.

2. Effective immediately, the satellite reconnaissance program will be managed within the above structure. Further:

a. There will be no review or approval channels between the Director of the SAMOS Project and the Secretary of the Air Force. However, in order to maintain general project knowledge within those command or staff offices where such knowledge is necessary for program support or coordination of related matters, need-to-know briefings will be given on a periodic basis. Briefings will be given by SAFMS without request and not as a part of project management actions. Requests for briefings will be directed to the Secretary of the Air Force and will be approved on a strict need-to-know basis.

NOTE: Same ltr addressed to Maj Comds, dtd 14 Oct 60.

~~FOR OFFICIAL USE ONLY~~

b. Visits to the SAMOS Project Office, El Segundo, [illegible] will be for official business only. Requests for visits [illegible] than specifically accredited contractors and agencies of [illegible] ment whose business requires regular and frequent visits [illegible] directed to the Secretary of the Air Force for approval.

c. The Director of the SAMOS Project is authorized direct contact with major commands to request support.

d. The Director, Office of Missile and Satellite Systems is authorized direct contact with the Air Staff and other staffs and agencies to request support as required.

3. The Executive Secretariat of the Air Force Ballistic Missile Committee will be the responsibility of the Director of Missile and Satellite Systems. Pending resolution and clarification of Air Staff participation in the direction of Ballistic Missile and Space Programs, the Secretariat will continue to provide the Air Force Ballistic Missile Committee with a direct channel to the Inglewood Complex, Air Material Command, and the Air Staff. This will include the necessary arrangements for meetings and follow-on implementing actions. The Air Staff will keep this office fully advised on missile and space matters so as to insure maximum effectiveness for the Secretary of the Air Force and the Air Force Ballistic Missile Committee. Until more detailed operating instructions are issued, the Air Staff will continue to assist the Office of Missile and Satellite Systems in every way possible.

4. The high national importance accorded the SAMOS Project requires complete support and immediate response from all elements of the Air Force. All individuals and organizations of the Air Force are urged to provide the necessary resources and assistance to these offices to assure the timely attainment of missile and satellite objectives.

ROBERT R. ROWLAND
Colonel, USAF
Secretary of the Air Staff

Page 1.

MSG ~~SECRET~~/SAFMS PHOTO 60-68.
12/23/60

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SECRET [redacted]

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~~SECRET~~/SAFMS PHOTO 60-68.
THIS MESSAGE IN FIVE PARTS. PART I. THE SECRETARY OF THE AIR FORCE HAS REVIEWED THE SAMOS DEVELOPMENT PROGRAM AND DIRECTS ACTION IN ACCORDANCE WITH THE GUIDANCE PROVIDED IN PARTS II, III AND IV BELOW.

PART II. F SUBSYSTEM

S A. THE USE OF ATLAS BOOSTERS IN THE FLIGHT TEST PROGRAM FOR SUBSYSTEM F-2 WILL BE TERMINATED.

B. SUBSYSTEM F-2 AND F-3 FLIGHT TEST WILL UTILIZE THOR BOOSTERS IN COMBINATION WITH THE AGENA VEHICLE, AND WILL BE CONDUCTED AS AN INTEGRAL PART OF THE SAMOS PROGRAM.

C. TWO THOR BOOSTERS AND AGENA VEHICLES 1121 AND 1122 ARE HEREBY REALLOCATED FROM THE DISCOVERER PROGRAM TO THE SAMOS PROGRAM. THESE WILL BE UTILIZEF TO SUVPORT THE INITIAL FLIGHT TEST OF THE F-2 PAYLOAD.

D. THE INITIAL F-2 FLIGHT TEST SHOULD BE SCHEDULED AT THE EARLIEST PRACTICAL DATE.

E. A FOLLOW-ON F-2 AND F-3 DEVELOPMENT AND FLIGHT TEST PROGRAM SHOULD BE PLANNED UTILIZING THOR AGENA WITHIN THE SAMOS PROGRAM.

F. IN PLANNING THE F-3 DEVELOPMENT, CONDIDERATION SHOULD BE GIVEN TO INCLUDE PROVISIONS FOR SECURE TCANSMISSION OF ANALIGUE READOUT DATW THROUGH ENCRYPTION OF OTHER TECHNIQUES.

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PART III. E SUBSYSTEMS

A. THE E-4 PHOTOGRAMMETRIC CAMERA SYSTEM WILL BE INTEGRATED INTO THE SAMOS PROGRAM SCHEDULE AT THE EARLIEST PRACTICAL DATE. SPECIFICALPY, ACTION SHOULD BE TAKEN TO ACCOMPLICH THE FOLLOWING. ← See Bottom

/. EXTEND PRESENT CONTRACT TO COMPLETE THREE E4 CAMERAS IN ADDITION TO THE TWO TEST CAMERAS PRESENTLY UNDER CONTRACT. THE ENTENDED CONTRACT SHOULD ALSO PROTECT LONG LEAD TIME ITEMS FOR FOUR ADDITIONAL CAMERAS.

/2/ PROVIDE THREE CONPLETE AGENA VEHICLES AND ASSOCIATED EQUIPMENT REQUIRED FOR THREE E-4 FLIGHTS.

/3/ PROTECT LEAD TIME ON CAPSULES, RE-ENTRY VEHICLES AND GSE REQUIRED FOR FIVE ADDITIONAL E-4 FLIGHTS.

[redacted]

MSG ~~SECRET~~/SAFMS PHOTO 60-68
12/23/60

[redacted]

B. SCHEDULE THREE E-4 FLIGHTS. THE FOLLOWING COMMENTS ARE FORWARDED FOR YOUR CONSIDERATION IN ESTABLISHING THIS SCHEDULE.

/1/ IT APPEARS THAT THE FIRST E-4 COULD FLY IN JUNE OR JULY 1961, UTILIZING THE ATLAS PREVIOUSLY SCHEDULED FOR THE F-2 PAYLOAD. IT IS UNDERSTOOD THAT AN E-4 CAMERA WILL BE AVAILABLE IN MAY WHICH POSSIBLY COULD BE USED FOR THIS FLIGHT.. THE FLIGHT SHOULD BE INSTRUMENTED TO OBTAIN DIAGNO OIQ DATA REGAJEING VEHICLE OPERATION AND CHARACTERISTICS OF RE-ENTRY CAPSULE.

/2/ IT IS DESIRED THAT A FULLY INSTRUMENTED DIAGNOSTIC CAPSULE WITH IMC PRECEDE THE OPERATIONAL [redacted] SECOND E-4 COULD BE SCHEDULED IN ITS PLACE. HOWEVER, TWO COMPLETELY INSTRUMENTED E-5 DIAGNOSTIC PAYLOADS SHOULD BE PROCURED. IN EVENT THAT ADEQUATE DATA IS OBTAINED ON FIRST DIAGMOSTIC SHOU, THE SECOND PACKAGE WILL BE REWORKED FOR USE AS AN OPERATING SYSTEM AT A LATER DATE.

/3/ THE E-6 DIAGMOSTIC PREPARATIONY AND FLIGHTS SHOULD FOLLOW THE SAME PATTERN DESCRIBED FOR THE E-5. ACCORDINGLY, THE THIRD E-4 COULD BE SCHEDULEDIN PLACE OF THE SECOND E-6 DIAGNOSTIC SHOT

C. THE ADDITIONAL E-4 CAMERAS SHOULD BE INTEGRATED INTO THE SAMOS SCHEDULE IN A MANNER WHICH WILL ALLOW COMPLETION OF THE EIGHT FLIGHTS BY LATE SUMMER 1963.

D. IN FUTURE BRIEFINGS AND PUBLICATIONS, ALL SAMOS SCHEDULES SHOULD SHOW TWO ALTERNATE SCHEDULES CONCERNING DIAGNISTIC FLIGHTS ONE BASED UPON SUCCESS OF THE FIRST DIAGONSTIC FLIGHT AND ONE BASED UPON FAILURE OF THE FIRST DIAGNOSTIC FLIGHT.

PART IV. UNTIL FURTHER NOTICE, SAFUS DIRECTS MAXIMUM SECURITY CONCERNING THE FACT THAT WE AREWAKING ANY ACTION ON E-4. HE EXPECTS TO LIFT THIS RESTRUCTION IN A MONTH OR SO.

PART V. YOUR COMMENTS ARE INVITED.

BT

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[redacted]

AFCSS-M/Mr. Bevins/djn/77808/16 Sep 60

AFCSS

Establishment of SAMOS Project Office

Sep 16 1960

Headquarters Command

1. Secretary of the Air Force Order No. 116.1 dated 31 August 1960 directs the establichment of SAMOS Project Office as a field extension office of OSAF. This field extension will be established effective 6 September 1960 at 2400 East El Segundo Boulevard, El Segundo, California.

2. The mission of the SAMOS Project Office is to manage the SAMOS project under the operational control of the Secretary of the Air Force. Additional duties may be assigned to the Director, SAMOS Project as deemed appropriate by the Secretary of the Air Force.

3. The SAMOS Project field extension office will be assigned to the 1132nd USAF Special Activities Squadron, 1020th USAF Special Activities Wing for reporting and such other purposes as may be required. Functional Code 57000 is assigned to this activity. Necessary logistic and administrative support will be provided in accordance with AFR 11-4. Manpower and funding vouchers will be issued by this headquarters at a later date.

4. Request immediate necessary action be taken to establish this field extension in accordance with the above.

Signed

R. M. MONTGOMERY
Major General, USAF
Assistant Vice Chief of Staff

HEADQUARTERS
HEADQUARTERS COMMAND
UNITED STATES AIR FORCE
Bolling Air Force Base 25, DC

GENERAL ORDERS)
NUMBER 66)

21 September 1960

ESTABLISHMENT OF SAMOS PROJECT OFFICE, OFFICE OF THE SECRETARY OF THE AIR FORCE. 1. Announcement is made of the establishment of the SAMOS Project Office as a Field Extension of the Office of the Secretary of the Air Force at 2400 East El Segundo Boulevard, El Segundo, California effective 6 September 1960.

2. The SAMOS Project Office is assigned as a Field Extension of the Office of the Secretary of the Air Force to the 1132d USAF Special Activities Squadron, 1020th USAF Special Activities Wing, Headquarters Command, USAF for reporting and such other purposes as may be required.

3. The mission of the SAMOS Project Office is to manage the SAMOS project under the operational control of the Secretary of the Air Force. Additional duties may be assigned to the Director, SAMOS Project as deemed appropriate by the Secretary of the Air Force.

4. Administrative and logistical support will be provided in accordance with Air Force Regulation 11-4.

5. Authority and reference: Air Force Regulation 20-27 and letter, AFCSS, Headquarters USAF, subject: Establishment of SAMOS Project Office, dated 16 September 1960.

FOR THE COMMANDER:

Thomas McBroom
THOMAS W. McBROOM
Major, USAF
Director of Administrative Services

DISTRIBUTION: B Plus
Secretary of the Air Force (SAFS) (5)
SAMOS Project Office,
2400 East El Segundo Blvd,
El Segundo, Calif (2)
Hq USAF, AFCSS (5)
Hq USAF (AFCIG, AFOOP, AFCSG, AFPDC, AFASC, AFASC-6B, AFRMP, AFOMO) (3 ea.)
1020 USAF Sp Actys Wg (2)
1130 USAF Sp Actys Gp (2)
1132 USAF Sp Actys Sq (10)
1100 AB Wg, WOMO (2)
1100 Spt Gp (14)
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OMO (5)

SECRET

THE SECRETARY OF DEFENSE
WASHINGTON

[redacted]

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MEMORANDUM FOR THE SECRETARY OF THE AIR FORCE

SUBJECT: Reconnaissance Satellite Program

The following actions, which were taken by the National Security Council at its meeting on 25 August 1960, and which were approved by the President, are transmitted for your information and implementation:

"1. That the following selected components of the Air Force satellite reconnaissance program will be assembled into a program of very high priority:

" a. A recoverable satellite-payload for high resolution convergent stereo photography.

" b. Satellite recovery at sea for the time being.

" c. Satellite recovery on land as soon as feasible.

" d. Some of the satellites to carry camera and film competent to identify with certainty missile sites both in construction and after completion.

" e. Other satellites to carry camera and film competent to study the state of readiness, type of activity, and type of missile.

"2. That emphasis will be placed on the development of more advanced recovery techniques, particularly for land recovery.

"3. That electronic read-out techniques will be given lower priority, but will be continued as a research project; and the extensive program for ground-based electronic read-out systems will be cut back very substantially and promptly.

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"4. That the so-called F payloads for gathering electromagnetic intelligence should be given lower priority than that assigned to photography."

"5. That this program will be managed with the directness that the Air Force has used on occasion, with great success, for projects of overriding priority. This can best be accomplished by a direct line of command from the Secretary of the Air Force to the general officer in operational charge of the whole program, with appropriate boards of scientific advisers to both the secretarial level and to the operational level. The general officer in command would look to associated military boards for support in the execution of his plans.

"6. That the same organization as was used in the handling of U-2 films will be used for chemical processing of the recovered film, and the output will be distributed by a central community facility.

"7. That this program will be closely integrated with the weather services that will be associated with the TIROS project, with USAF 433L system and with other sources of weather data.

"8. That the first scheduled experimental launching of SAMOS will take place during September 1960."

Memorandum from the Secretary of Defense to the Secretary of the Air Force, dated September 15, 1960, subject: Reconnaissance Satellite Program, already implements that part of the National Security Council's action contained in paragraph 5 above.

Thomas Gates

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13 Sep 60

MEMORANDUM FOR THE CHIEF OF STAFF, USAF

As a result of recent review of the SAMOS Project at the highest national level, changes have been made in the character and scope of the technical program. It has been directed by the National Security Council and the Secretary of Defense that special management procedures be established in accordance with the national importance of this program.

Accordingly, I have established:

a. A Director of the SAMOS Project at AFBMD as a field extension of my office, responsible to and reporting directly to me, and

b. An Office of Missile and Satellite Systems (SAFMS) within my staff, to assist me in the discharge of my responsibilities.

The functional relationship between the above offices is outlined in the attachments hereto, along with a description of the organization and functions of the Office of Missile and Satellite Systems and the charters of an Advisory Council and a Technical Advisory Group on Satellite Reconnaissance.

Effective immediately, the satellite reconnaissance program will be managed within the above structure. There will be no review or approval channels between the Director of the SAMOS Project and the Secretary of the Air Force. However, in order to maintain general project knowledge within those command and staff offices where such knowledge is necessary for program support or coordination of related matters, need-to-know briefings will be given by the program management staff. These briefings will be given on a periodic basis, without request, and not as a part of Project management actions. All requests for briefings will be directed to the Secretary of the Air Force, and will be approved only on a strict need-to-know basis.

The national urgency requires the utmost support with immediate response and overriding priority from all elements of the Air Force as and whenever requested by the program

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management. The Director of the SAMOS Project is authorized direct contact with major commands to request such support. The Director, Office of Missile and Satellite Systems is authorized direct contact with the Air Staff, and other staffs and agencies, to request support as required.

Visits to the SAMOS Project Office will be for official business only. Requests for visits by other than normally accredited contractors and agencies of government whose business requires regular and frequent visits will be directed to the Secretary of the Air Force for approval.

Request that you inform the Air Staff and all major commands of the above direction immediately.

/s/ DUDLEY C. SHARP
Secretary of the Air Force

3 Incls:
1. Org & Functions of
   Off of Msl & Sal Sys (U)
2. Sat Recon Adv Council (U)
3. Sat Recon Tech Adv Gp (U)

COPY

ORGANIZATION AND FUNCTIONS OF THE OFFICE OF MISSILE AND SATELLITE SYSTEMS

1. Secretary of the Air Force Order No. 116.1, dated 31 August 1960, designated Brigadier Robert E. Greer as Director of the SAMOS Project, with additional duty as Vice Commander for Satellite Systems, AFBMD, ARDC, with duty station at AFBMD. It directs him to organize a SAMOS Project Office at AFBMD as a field extension of the Office of the Secretary of the Air Force. It specifies that the Director of the SAMOS Project is responsible to and will report directly to the Secretary of the Air Force.

2. Secretary of the Air Force Order No. 115.1, dated 31 August 1960, established the Office of Missile and Satellite Systems in the Office of the Secretary of the Air Force. It provides that the Director of the Office of Missile and Satellite Systems is primarily responsible for assisting the Secretary in discharging his responsibility for the direction, supervision and control of the SAMOS Project. He is responsible for maintaining liaison with the Office, Secretary of Defense and other interested governmental agencies on matters relative to his assigned responsibilities. He may be assigned additional duties as deemed appropriate by the Secretary of the Air Force, and he will provide the Secretariat for the Air Force Ballistic Missile Committee.

3. The general management structure for the SAMOS Project is outlined in Figure 1, attached. The Satellite Reconnaissance Technical Advisory Group will be appointed by the Secretary of the Air Force and will provide the means of obtaining the services of recognized experts from the scientific and applied engineering fields in the furtherance of the technical program. The Satellite Reconnaissance Advisory Council will be appointed by the Secretary of the Air Force to provide advice and counsel to him in the discharge of his overall responsibilities.

4. The internal organization and personnel assignment of the Office of Missile and Satellite Systems is outlined in Figure 2, attached. Following is a brief description of the principal duties of SAFMS officers:

OFFICE OF THE DIRECTOR

Director	Responsible for conducting all actions of SAFMS in accordance with policy of and delegated authority from the Secretary of the Air Force.
Deputy Director	Principal assistant to the Director, acts with full authority of the Director on all affairs of SAFMS. Responsible for overall direction, guidance, supervision, and coordination of the activities of the office.
Executive Office	
Executive Asst Executive	Executive Officer and Chief of the Executive Office and responsible for the general administration of SAFMS, including mail, security, records, inspections, personnel, travel, and overall office management.

EXECUTIVE SECRETARIAT OF AF-BMC

Secretary **Asst Secretary**	Executive Secretariat of the Air Force Ballistic Missile Committee for Missile and Space Systems. Handles all matters related to Committee actions.

SATELLITE RECONNAISSANCE

Asst for Programs	Responsible for SAFMS duties concerning programming, funding, and schedules. Monitors, briefs and reports on all SAMOS launches. Maintains an active, working SAMOS control room for daily use. Responsible for actions incident to revising, processing, and maintaining the SAMOS development plan. Responsible for general briefings on the entire overall SAMOS Project, and for the preparation and maintenance of complete briefing material, aids and information on the overall project

Asst for Electronics	Responsible for SAFMS duties concerning electronic payloads, ELINT, and related matters; weather aspects of the SAMOS Project; technical compatibility of electronic aspects of Subsystem I, Space-Ground Communications. Responsible for NSA liaison and coordination. Responsible for maintaining current knowledge of booster and vehicle capabilities. Alternate to the Assistant for Instrumentation.
Asst for Photography	Responsible for SAFMS duties concerning photographic equipment and payloads and related coordination with other services and agencies. Responsible for photographic compatibility aspects of Subsystem I. Alternate to Assistant for System Engineering.
Asst for Instrumentation	Responsible for SAFMS duties concerning Subsystem I, its overall development, schedules, locations, tests, and overall technical design, overall data processing and handling of all SAMOS outputs. Also responsible for SAMOS recovery program, SAMOS command and control aspects, including centers and stations. Also responsible for MIDAS and DISCOVERER coordination. Alternate to Assistant for Electronics.
Asst for System Engineering	Responsible for overall system engineering aspects including interchangeability of payloads, system performance capabilities, mission variations, system growth possibilities, and relative priorities within the Project. Responsible for necessary coordination with related and supporting R&D programs. Also responsible for special projects as assigned by the Director. Alternate to the Assistant for Photography.

~~FOR OFFICIAL USE ONLY~~
(AFR 190-16)

SATELLITE RECONNAISSANCE TECHNICAL ADVISORY GROUP

1. The services of recognized experts from the scientific and applied engineering communities shall be solicited as appropriate in the furtherance of the SAMOS technical program. Such services shall be rendered through the functioning of the Satellite Reconnaissance Technical Advisory Group.

2. The Satellite Reconnaissance Technical Advisory Group shall be composed of:

a. A permanent Standing Committee of four, which shall include recognized experts in the fields of electronics, photography, and data handling. The membership of the Standing Committee will be appointed by the Secretary of the Air Force.

b. Assemblies of technical experts representing pertinent scientific and engineering fields convened as occasions arise necessitating competent technical evaluation and advice in the prosecution of the Satellite Reconnaissance Program. Participation of such individuals in assemblies of the Satellite Reconnaissance Technical Advisory Group shall be by invitation from the Secretary of the Air Force. The Standing Committee shall preside at assemblies of the Technical Advisory Group.

3. Each assembly of the Satellite Reconnaissance Technical Advisory Group shall be chartered to consider specifically designated matters. Individuals invited to participate in Technical Advisory Group assemblies may vary for each assembly according to the nature of the matters under consideration.

4. Reports and findings of the Satellite Reconnaissance Technical Advisory Group shall be prepared for and submitted to the Secretary of the Air Force by the Standing Committee.

5. The Secretary of the Air Force shall, upon request from other government agencies in matters of national interest involving resolution of technical differences, direct the permanent Standing Committee to convene a special assembly of competent persons as determined by the Standing Committee, to consider the matter under request and to recommend appropriate resolution.

~~FOR OFFICIAL USE ONLY~~
(AFR 190-16)

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~~(AFR 190-16)~~

SATELLITE RECONNAISSANCE ADVISORY COUNCIL

1. Recent changes in the SAMOS management structure have resulted in the establishment of a Director of the SAMOS Project at AFBMD, as a field extension of the Office of the Secretary of the Air Force, and an Office of Missile and Satellite Systems within the Secretary's staff to assist him in the discharge of his responsibilities. The SAMOS Project will be managed within this structure, with no intermediate review or approval channels between the SAMOS Project Director and the Secretary of the Air Force.

2. In order to assist the Secretary in the discharge of his responsibilities, there is a need for an advisory agency to provide assistance, advice and recommendations as required. This agency will be the Satellite Reconnaissance Advisory Council.

THE SATELLITE RECONNAISSANCE ADVISORY COUNCIL:

Under Secretary of the Air Force, Chairman
Assistant Secretary (Research and Development)
Assistant Secretary (Financial Management)
Assistant Secretary (Materiel)
Vice Chief of Staff
Deputy Chief of Staff, Development
Assistant Chief of Staff, Intelligence
Director, Office of Missile and Satellite Systems

3. The Office of Missile and Satellite Systems will provide the Secretariat for the Council.

4. No alternates will be designated. Attendance will be limited to the members of the Council and such other individuals as may be invited to attend by the Chairman.

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(AFR 190-16)

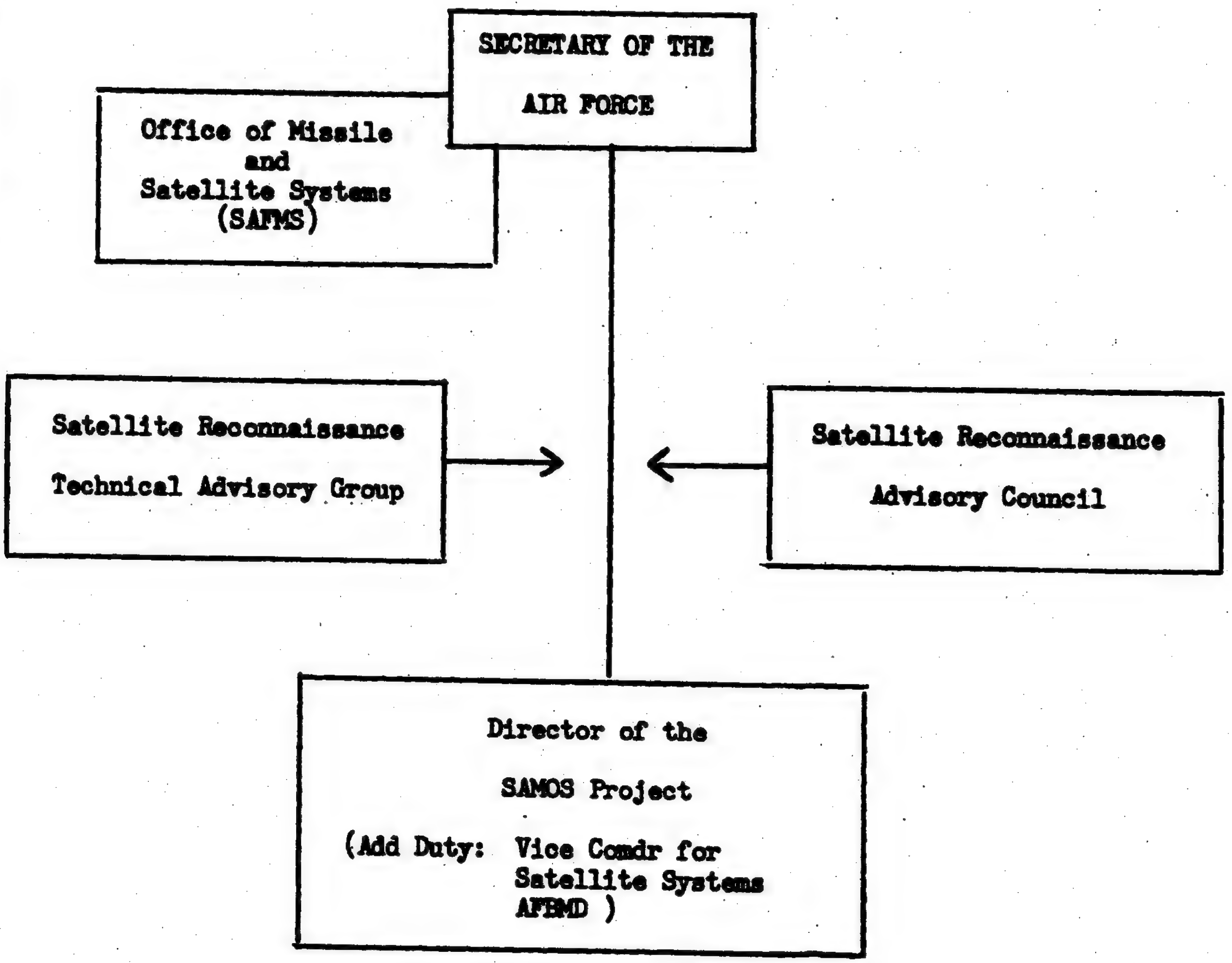
SECRETARY OF THE AIR FORCE
Office of Missile and Satellite Systems (SAFMS)
Satellite Reconnaissance Technical Advisory Group
Satellite Reconnaissance Advisory Council
Director of the SAMOS Project
(Add Duty: Vice Comdr for Satellite Systems AFBMD)

Figure 1.

DEPARTMENT OF THE AIR FORCE
Office of the Secretary of the Air Force

12 September 1960

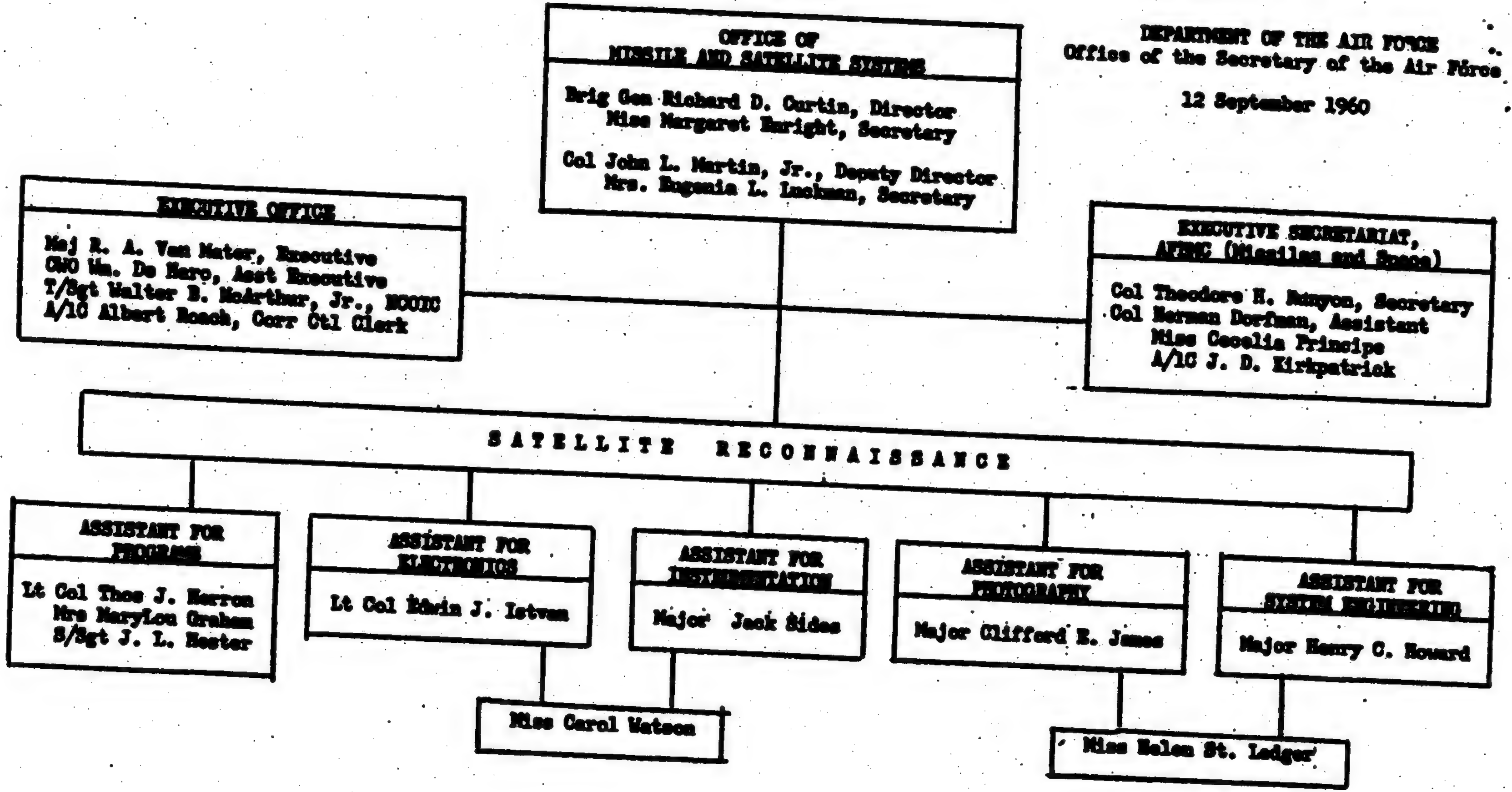

Figure 2.

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THE SECRETARY OF DEFENSE
WASHINGTON

SEP 6 1960

MEMORANDUM FOR THE SECRETARY OF THE AIR FORCE

SUBJECT: Revised SAMOS Development Plan, dated 11 August 1960

The SAMOS Research and Development Plan, which was forwarded to this office by Air Force memorandum dated 17 August 1960, is approved subject to the subsequent inclusion of technical revisions in the program. These revisions were specified by the reviewing authorities and have been discussed with the Under Secretary of the Air Force. In view of the urgency of this program, the USAF may proceed immediately with necessary actions on these new, approved portions of the program. Necessary revisions and addendum to The SAMOS Research and Development Plan of 11 August 1960 will be processed immediately as staff matters between ODDR&E and the Air Force. The revisions and addendum are subject to final approval by the Director of Defense Research and Engineering.

[redacted]

This development plan approval action on SAMOS does not constitute a basis for approval for any request for funds in excess of the amount reserved above; nor does it constitute approval of the operational plan submitted by the Air Force in February, 1960.

[illegible]
INTERVALS; NOT AUTOMATICALLY
DECLASSIFIED. DOD DIR 5200.10

/s/

JAMES H. DOUGLAS
Acting

DS 60-3001 - A1

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SAFS FILE 37-60

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SEC DEF CONT NO 8-767

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31 Aug 60

OFFICE OF THE SECRETARY

MEMORANDUM FOR THE CHIEF OF STAFF

1. In implementation of SAFO 115.1, it is requested that orders be issued assigning Brigadier General Richard D. Curtin as Director of the Office of Missile and Satellite Systems. Personnel listed in the attachment should be assigned coincident with General Curtin's assignment.

2. Necessary adjustment to the authorized manning of OSAF will be made to accomodate the transfer of the personnel indicated.

3. Physical office space should be in the area presently occupied by the Assistant Chief of Staff for Guided Missiles, if feasible.

s/DUDLEY C. SHARP

1 Incl:
Attach.

COPY

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PERSONNEL PRESENTLY ASSIGNED TO DEPUTY CHIEF OF STAFF, DEVELOPMENT

Brigadier General Richard D. Curtin
Colonel John L. Martin, Jr.
Major Henry C. Howard - later
Major Jack NMI Sides - later
Major Clifton E. James

PERSONNEL PRESENTLY ASSIGNED TO OFFICE OF ASSISTANT CHIEF OF STAFF FOR GUIDED MISSILES

Miss M. S. Enright
Mrs. E. L. Luckman
Major R. A. Van Mater
CWO W. DeHaro
T/Sgt W. B. McArthur, Jr.
A/1c A. Roach

Colonel T. H. Runyon
Miss C. Principe
S/Sgt J. L. Hester
A/1c J. D. Kirkpatrick

Colonel H. Dorfman
Miss H. StLedger
Lt Colonel E. J. Istvan
Miss C. L. Watson

Lt Colonel T. J. Herron
Mrs. M. L. Graham

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[illegible] SECRETARY OF THE AIR FORCE

ORDER

[illegible]: Organization [illegible] the Office of [illegible] Satellite Systems

1. [illegible] established [illegible] Satellite Systems in the Office of the Secretary of the Air Force.

2. The Director of the Office of Missile and Satellite Systems is primarily responsible for assisting the Secretary in discharging his responsibility for the direction, supervision and control of the SAMOS Project. He is responsible for maintaining liaison with the Offi[illegible] Secretary of Defense and other [illegible] Governmental agencies on matters relating [illegible] bilities. He may be assigned additional duties as deemed appropriate by the Secretary of the Air Force.

3. The Director will provide the Secretariat for the Air Force Ballistic Missile Committee.

DUDLEY C. [illegible]
Secretary of [illegible] Force

3

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Functions: COMOR

DCID No. 2/7
(New Series)

DIRECTOR OF CENTRAL INTELLIGENCE DIRECTIVE NO. 2/7

COMMITTEE ON OVERHEAD RECONNAISSANCE (COMOR)

(Effective 9 August 1960)

Pursuant to the provisions of NSCID Nos. 1, 2, 3 and 6, and for the purpose of providing a focal point for information on, and for the coordinated development of foreign-intelligence [1] requirements for, overhead reconnaissance projects and activities of the Government over denied areas [2] (including foreign-intelligence requirements during research and development phases of such projects and activities) a Committee on Overhead Reconnaissance (COMOR) of the U.S. Intelligence Board is hereby established.

1. For the purposes of this directive the term "overhead reconnaissance" includes all reconnaissance for foreign-intelligence purposes by satellite, or by any vehicle over denied areas, whether by photographic, ELINT, COMINT, INFRARED, RADINT or other means, but does not include reconnaissance and aerial surveillance in direct support of actively combatant forces.

2. The Committee shall coordinate the adaptation of priority foreign-intelligence objectives and requirements established by USIB, members of USIB, or other committees of USIB, to the capabilities of existing and potential overhead reconnaissance systems; and shall examine and make recommendations, as appropriate, on such related matters as dissemination and any special security controls required, but shall not undertake to provide operational guidance. (As pertains to COMINT, such special security controls shall not be less restrictive than those prescribed by COMINT regulations.)

3. The Committee on Overhead Reconnaissance (COMOR) shall be composed of designated representatives of Intelligence Board departments and agencies. Representatives of other agencies may be invited by the Chairman to participate in selected discussions as agreed by the Committee.

4. The Chairman of the Committee shall be designated by the Director of Central Intelligence in consultation with and with the concurrence of the Intelligence Board.

ALLEN W. DULLES
Director of Central Intelligence

---

[1] As distinguished from operational "early warning" information and other operational-support intelligence.

[2] For purposes of this directive "denied areas" include all territory and territorial waters claimed by members of the Sino-Soviet Bloc, as well as such other areas of priority intelligence interest as may be determined by USIB.

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[illegible] PAPER

COPY No 167

[illegible] COMOR

Attch 20

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7/23/60

[redacted]

FR HEDUSAF WASH DC TO COMDR ARDC ANDREWS AFB MD 23 JUL 60 IC 6954

~~SECRET~~ CITE AFDSD-AT 71953. ARDC FOR RDRB, AFBMD FOR WDZY. REF MSG THIS HQ AFDSD-AT 70836 DTD 20 JUL 60. THIS MSG IN SIX PARTS. PART ONE: (SAFus) SAMOS HAS DIRECTED THAT THE 12 JUL 60 SAMOS DEVELOPMENT PLAN BE REVISED TO COMPLY WITH FOLLOWING INSTRUCTIONS. A. THE NEW DEVELOPMENT PLAN LAUNCH SCHEDULE WILL CONTAIN THE FOLLOWING PROVISIONS: /1/ 3E-1/F-1 /2/ 3E-2 /3/ 2F-2 /4/ 2E-5 DIAGNOSTIC CAPSULE FLIGHTS /5/ 7E-5 /6/ 7 NEW RECOVERABLE PHOTO PAYLOADS /7/ 5 UNASSIGNED ATLAS/AGENA. DIAGNOSTIC CAPSULE FLIGHTS FOR THE NEW RECOVERABLE PAYLOAD, IF REQUIRED, ARE TO BE ALLOCATED FROM THE 5 UNASSIGNED ATLAS/AGENA. B. BUY 4 F-2 PAYLOADS BUT SCHEDULE ONLY 2. C. BUY 5 E-2 PAYLOADS BUT SCHEDULE ONLY 3. D. THE NEW RECOVERABLE PROGRAM WILL HAVE A NEW RECOVERY SYSTEM, AND A CAMERA DESIGNED FOR GROSS COVERAGE WITH THE BEST GROUND RESOLUTION THAT THE STATE OF THE ART WILL SUPPORT. IT SHOULD HAVE A NEW RECOVERY SYSTEM OF BEST QUALITY THAT STATE OF ART WILL SUPPORT. E. IT IS IMPERATIVE THAT THE R&D PROGRAM BE AMENDABLE TO THE FLEXIBILITY OF SWITCHING PAYLOADS AS RESULT OF EARLY SUCCESSFUL LAUNCHES SUCH SUBSTITUTION OF F-2 PAYLOAD FOR THE THIRD E-2. PART TWO: A. PLAN FOR MAXIMUM USE OF PLAN FOR MAXIMUM USE OF THOR BOOSTED VEHICLES FOR COMPONENT TESTS, RECOVERY DEVELOPMENT PROGRAM, ETC. THE SOLID ROCKET ASSISTED THOR PROPOSED IN THE 12 JULY DEVELOPMENT PLAN IS NOT TO BE USED. B. MAXIMUM USE WILL BE MADE OF ATLANTIC MISSILE RANGE WHERE POSSIBLE FOR RECOVERY TEST PROGRAM, WINTER LAUNCHES, ETC. PART THREE: THE NEW RECOVERABLE PAYLOAD WITH ASSOCIATED STABILIZATION AND NEW RECOVERY SYSTEM IS TO BE DEVELOPED IN A [illegible] COMPREHENSIVE TECHNICAL ~~AND~~ DEVELOPMENT PROGRAM INITIATED IMMEDIATELY THROUGH EXPEDITED SOURCE SELECTION PROCEDURES. IT IS NOT RESTRICTED TO A SINGLE CONCEPT OR A SINGLE SOURCE AND COMPETITION FOR LIMITED TIME MAY BE USED WHEN APPLICABLE TO ENABLE RAPID PROGRESS IN SELECTION BETWEEN ALTERNATIVE APPROACHES. PART FOUR: OSD APPOINTING AD HOC COMMITTEE TOXM MAKE RECOMMENDATIONS CONCERNING SUBSYSTEM I. GUIDANCE ON THIS QUESTION AND RELATED QUESTIONS PERTAINING TO DENVER PROCESSING LAB AND POSSIBLE USE OF WESTOVER AFB MUST AWAIT THESE RECOMMENDATIONS WHICH ARE EXPECTED IN THREE OR FOUR WEEKS.

Not controlled

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DOWNGRADED AT 12 YEAR
INTERVALS; NOT AUTOMATICALLY
DECLASSIFIED. DOD DIR 5200.10

Unclassified

PART FIVE: IT IS MANDATORY THAT ALL PROGRAM DOCUMENTS AND PRESENTATIONS FULLY RECOGNIZE THAT SAMOS IS A NATIONAL PROGRAM UNDER THE EXECUTIVE MANAGEMENT OF THE AIR FORCE. THE USIB SAMOS REQUIREMENTS DOCUMENT DATED 6 JULY 1960 AS MAY BE SUBSEQUENTLY AMENDED BY THE USIB, IS THE ONLY SET OF INTELLIGENCE REQUIREMENTS THAT PERTAIN TO THE SAMOS PROGRAM. PART SIX: ARDC IS DIRECTED TO /A/ PROCEED IMMEDIATELY WITH INITIATION OF NEW RECOVERABLE PAYLOAD AND ASSOCIATED COMPONENTS AND RECOVERY SYSTEM /B/ REVISE THE 12 JUL 60 SAMOS DEVELOPMENT XX PLAN IN ACCORDANCE WITH INSTRUCTIONS HEREIN. EXCLUDE SUBSYSTEM I AND DATA PROCESSING AND HANDLING PLANS. THESE ARE TO BE ADDED LATER AS AN ANNEX WHEN NEW GUIDANCE PERMITS. /C/ PLAN FOR 8 AUG 60 REVIEW OF REVISED DEVELOPMENT PLAN BY AFBMC.

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dated between 5 July &
July 20, 60
appx. 10 July 60

a. Make every effort to obtain one successful F_1 in orbit for an operational period of approximately 36 hours (not for the purpose of obtaining intelligence information but rather to obtain R&D information). Subsequently, the F-1 may be removed at the discretion of the USAF or as determined by the evaluation of the results of successful flights.

b. Continue with the manufacture of the F_2 payloads but schedule only two launches. The first of these launches is June 1961, the second to be scheduled later.

c. Reduce the E_2 program from 8 launches to 3 launches.

d. The sole requirements that define the ultimate operational capabilities are to be those stated in the USIB SAMOS Requirements document, dated 5 July 1960, and as may be subsequently changed by the USIB. These are the only set of intelligence requirements that pertain to the SAMOS program, and are to be so recognized by the Air Force. It is to be noted that the R&D program necessary to meet the operational requirement is not to be specified by the USIB but is the responsibility of the R&D management agency.

e. With respect to the work statement outline that will be used for the new recoverable gross coverage payload, the ground resolution will be specified as the best that the state of the art will support, and not be limited to 20 feet. Further, the new recoverable system in toto should be the best that the state of the art will suppor;t, i.e., recovery

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method, guidance, components, etc.

f. Proceed immediately with the siting, design, and construction of a blockhouse and 3 ATLAS/AGENA launch pads adjacent to Complex 1, Point Arguello.

g. The proposal for the Thor (solid rocket assist) development program is disapproved.

h. The new Development Plan launch schedule should contain the following provisions:

(1) Three E_1/F_1

(2) Three E_2

(3) Two F_2

(4) Two E_5 disgnostic capsule flights

(5) Seven E_5

(6) Seven new recoverable (Diagnostic, if required, to be allocated from the 5 unassigned)

(7) Three F_3

(8) Five unassigned ATLAS/AGENA

i. Make the maximum possible use of Thor boosted vehicles for component test, that is, recovery development program, stabilization test, etc.

j. Maximum use will be made of the AMR facilities especially for the recovery test program and winter launches. (Three advanced re-entry ATLAS/AGENA vehicle tests are scheduled to be fired from the

AMR at the present time. These are not considered an integral part of the SAMOS program.)

k. Provide funding requirements in accordance with the above conditions.

l. Initiate a comprehensive parallel technical development program, using expedited administrative procedures, including sole source procurement. This program and resulting procurement is not restricted to a single concept nor a single source.

m. The disposition of the Denver Laboratory facilities to be held in abeyance pending the establishment of an Ad Hoc Review Committee to look into and recommend disposition to DDR&E within three weeks; (the committee to categorize their report into pertinent areas such as the capability to handle: 1) recovery, 2) readout, 3)ELINT, and 4) evaluation of SS/I equipment vs. current intelligence processing equipment, 5) identify equipment indispensable to a) revised SAMOS program, b) other intelligence needs, and c) that which should be terminated.

n. The continued development of SS/I and simulation to provide a complete Phase I capability for E_2 and F_2 and those por;tions of E_5 currently under development to be held in abeyance pending the review committee's recommendation.

o. The proposed management structure at both the active R&D level and the guidance level to be held in abeyance pending further instructions.

p. With respect to the method of handling of the R&D take for other than R&D purposes the intelligence community to submit to the USAF their recommendations relative to procedures, techniques and quantitative requirements pertaining to the end product.

q. The proposal for the use of Westover Air Force Base to be held in abeyance pending recommandation of the intelligence community. It is to be noted that the SAMOS R&D program decisions are not contingent upon a decision on whether to use Westover as a central space film processing facility.

r. The proposal for using the Denver Data Processing Lab as a site for Category 2 and 3 testing and Air Force Phase I evaluation to be held in abeyance awaiting the results of the Ad Hoc Committee review.

s ~~x~~. It is imperative that the R&D program be amenable to the flexibility of switching payloads as a result of early successful launches; i. e., be prepared to substitute an F_2 for the third E_2 or a scheduled new recovery payload.

t. The Air Force is to prepare a set of presentations or reports clearly outlining what the Air Force is doing in the component test areas; that is, recovery research, including Mercury, station keeping, power supply, all satellite gadgetry, that would justify the scope of the SAMOS launch schedule. These briefings are required for the first week in August, and tentatively expected to be given at AFBMD.

u. It is believed that the Air Force has not yet recognized the national character of the SAMOS Program. It is mandatory that the program be expedited, expanded, and efficiently managed as a national asset.

v. Political acceptability through plausible cover in terms of dual payloads are mandatory considerations to be met by the revised program.

w. The technical development area to be augmented to investigate and provide the following when appropriate:

(1) Spin pan.

(2) E_5 resolution to solve the area coverage problem.

(3) Frame camera capabilities.

(4) High resolution map camera, i.e., 100'-50' and 20' resolution.

(5) Electrostatic program (improved TIROS)

(60 Appropriate bio-medical experiments

(7) Physical science experiments.

(8) All-weather peacetime inspection capability

(9) All-weather peacetime surveillance capability

(10) Dual payload capability.

(11) Optical systems of various focal lengths, formats, lens systems, etc.

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BT
/~~S E C R E T~~/FROM AFDSD-AT 70836, ARDC FOR RDRB, AFBMD FOR WDZY, THIS MSG IN FOUR PARTS.

PART I. THE 12 JULY 60 SAMOS DEVELOPMENT PLAN WAS APPROVED FOR PRESENTATION TO DDR&E, WITH CHANGE TO REQUIRE TOTAL OF TWO NEW ATLAS LAUNCH PADS WITH BLOCKHOUSE ADJACENT TO COMPLEX 1 AT PT ARGUELLO.

PART II. FOLLOWING PLANNING GUIDANCE FROM SAFUS IS BASED ON SUBSEQUENT DISCUSSIONS WITH OSD AND OTHERS: (A) DO NOT PLAN FOR THOR/SERGEANT LAUNCHES; (B) ANTICIPATE IMMEDIATE APPROVAL OF NEW TRIPLE PAD ATLAS COMPLEX AND PLAN FOR USE OF ATLAS /AGENA FOR NEW RECOVERY PAYLOADS; (C) NEW RECOVERY PAYLOAD PROGRAM MUST BE TRULY

ADVANCED SYSTEM FOR SYSTEMS OF HIGHEST RESOLUTION THAT STATE OF THE ART WILL ALLOW AND SHOULD INCLUDE ASSOCIATED ATTITUDE STABILIZATION SYSTEM AND APPROPRIATE RECOVERY SYSTEM; (D) CONSIDER EARLIEST FLIGHTS F THE NEW SYSTEM IN LIEU OF F-2 AND E-2 WHERE NECESSARY TO MEET USIB REQUIREMENTS; (E) PLAN FOR THOR/AGENA AND TITAL LAUNCHES TO THE EXTENT THAT THEY CAN BE USED FOR COMPOMENT TEST FLIGHTS OR OTHERWISE; (F) EXAMINE AMR LAUNCH POSSIBILITIES FOR APPLICATION TO REVISED PROGRAM.

PART III. PENDING APPROVAL OF THE REVISED DEVELOPMENT PLAN BY DDR&E, ARDC IS DIRECTED TO TAKE THE NECESSARY ACTION TO PROTECT THE SCHEDULES TO ASSURE EARLIEST AVAILABILITY OF THE NEW PAYLOADS INCLUDING INITIATION OF PAYLOAD PROGRAM SOURCE SELECTION ACTIONS. ARDC IS ALSO DIRECTED TO STUDY THE IMPACT OF THE PROGRAM REVISIONS ON BOOSTER PRODUCTION SCHEDULES AND PRESENT THE RESULTS TO THE AFBMC AS SOON AS PRATICABLE.

PART IV. THE POINT ARGUELLO COMPLEX WILL BE THE SUBJECT OF SEPARATE ACTION FROM AFOCE.
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20/1559Z JUL RJEZHQ

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Notes from "Review and Recommendations of USAF Satellite Reconnaissance Project SAMOS", by DDR&E COMINT/COMSEC/ELINT Advisory Group, July 14, 1960

I. General-Background Information

"Any review must consider the program as a whole in order to be most effective." There is recent "evidence of a revised doctrine of the SAMOS Program" from "informal discussion with members of OSAF." "However, in the meantime, national and international affairs have forced a new urgency, coupled with a frantic expectancy, for a project whose technology has been both overstated and underdone." The report attempts "to consolidate various reviews made to date."

II. General - Political and Management Considerations.

"International and national approval is and will continue to be a serious problem." "The situation must be such that the program will be acceptable politically--initially, on a U. S. National basis, and later, on an international basis."

"This includes **** operational and/or executive control by an organization capable of sponsoring both military and civilian peace-time utilization, and of expeditiously and effectively exploiting the results."

"U. S. cannot afford two R&D programs of this type." "Political approval ** will depend ultimately upon the degree that the conditions of universal application are met by SAMOS."

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"Military and civilian requirements are compatible in R&D." --but "clearer relation is needed between State, NASA, and DOD concerning exploitation of R&D results.

"*** data reduction simultaneously or in cooperation with all intelligence agencies with reference material from all available sources."

"Money and effort should be used to clean up, expedite, and improve the existing programs; and greater effort should be placed on obtaining improved end results, qualitatively and quantitatively."

"All of the above indicates that the program should be under the executive control of a national organization that has an international growth potential."

"Recommendations"---

(1) "It is recommended that the DOD recommend to the NSC that executive responsibility for general guidance, operational plans and policies, and establishment of operational priority, in both the civilian and military applications of SAMOS, be placed under a new DOD executive officer (ad hoc) or under an existing office, such as the Assistant Secretary of Defense/Special Operations."

(2) "The USAF be given the task of:

(a) Managing the R&D program.

(b) Operating the military part of the operational program either openly or under cover of a civilian mission.

(c) Making available both the raw and the analyzed data to all U. S. agencies designated by the Executive Office, whose establishment is recommended under (I) above.

(2) The Executive Officer should examine the possibility of accomplishing data reduction by a "Joint Satellite Processing and data Reduction Center."

III General - Requirements

"It is worth noting at this point that the principle of concurrency has been observed too strictly here: the data processors should be built only after the work on the collection system has progressed at least to the point of defining the basic concepts. This was not done in Subsystem I and the consequences of the error are serious."

Concerning the effect of weather, orbit geometry, resolution and economic factors: "*** the feasibility of the original scheme as a warning device has been shown to be both problematic from a technical point of view and almost impossible from an economic point of view."

Note that the original warning concept of subsystem E is what put emphasis on readout rather than recovery, large funds for data processing devices, video film links, digital computers, etc.

"There is still insufficient appreciation that SAMOS is a national rather than an Air Force project. The USAF owes to all interested intelligence agencies periodic and candid reports on its intentions, plans, and accomplishments. The SAMOS capabilities go far beyond merely providing intelligence information; and this fact [illegible] contributes further to the responsibility of the Air Force towards meeting information needs other than its own intelligence requirements."

IV General - Readout

UMIB considers 100' resolution unacceptable for detection and identification of missile bases under construction. E-1 use for intelligence therefore is not comparable to its R&D test value.

"It is fundamental to this program that the recovery problem be solved at all costs, independently of any operational take." (If so, then a solution can be obtained in time to meet UMIB requirements).

V General - Recovery

"simplified payloads launched by abundant and presumably reliable THOR vehicles (should) be promptly devised for prolific studies of object recovery from orbits in space." This "should involve both land and water recoveries."

"We believe that one of the fundamental reasons why recovery has not been successful up to now, and if successful, unlikely to be continuously successful, is the process through which the Air Force has gone in achieving the desired result." "*** over and over, the influence on the research and development recovery program introduced by the necessity for some kind of usable results, has blocked the technical progress of the main contractor."

A "contract situation should be created where the solution of re-entry problems is reasonably decoupled from modifications of the payload."

"The present regime resembles efforts to develop Faraday's capacitor for the first time during the construction of a giant computer."

VI Weather -

Recovery is better than readout for exploitation of good weather. 70 mm pan camera recovered after 24 hours has 6 to 12 times coverage of E-2 for same length of time because of readout limitations.

VII General - Photographic

Publicity has seriously jeopardized utility of system. Plan for all releases should be approved at Executive level and enforced.

E-2 is technically obsolete--its limitations are economically and politically unacceptable.

Prefer relatively short life recovery to 30 day recovery (E-5). "More consistent with weather (coverage of large cloud-free areas in 24-72 hours), political problems (psychological effect of a continuously orbiting reconnaissance vehicle over long periods of time)".

RECOMMENDATIONS _

E-1 and F-1 remain as is, expedite launch if possible, priority on photo but not at expense of target.

Limit E-2 to 4 and terminate at end of CY 61.

Initiate studies and technical development programs to allow [illegible] future readout system if required.

Increase emphasis on early availability of recoverable system, reduce emphasis on appropriate ground processing, reproduction and data reduction systems.

Develop smaller camera packages of higher resolution, smaller [illegible] payloads, effective stereo. Use all government organizations and agencies having primary mission responsibilities in reconnaissance.

VIII Subsystem I

Recommendations -

Precede further work by test and evaluation to classify [illegible] into following categories:

(a) Those items which are, or appear likely to be, better than similar devices available for general use. Complete and make applicable to systems other than SAMOS.

(b) Those items which are, or appear likely to be indispensable and available to supply minimum capability for interpretation of [illegible] data of E-2—complete.

(c) Those items which are, or appear likely to be indispensable for future handling of recovery payloads.

Continue, if already initiated, provided they are general in scope and do not limit ultimate system performance.

(d) Items which do not meet a, b, c and those that are limited to ELINT—suspend.

Base simulation on "realistic rather than idealistic basis."

"It is recommended that the entire intelligence community participate in all aspects of the ~~sys~~ Subsystem I program, and that evaluation of the system take into consideration all other programs, both special and conventional."

IX ELINT/COMINT

Subsystem F Recommendations -

Put greater emphasis on payloads. Reduce the number of Atlas Agenas, and use Thors (with or without clustering Sergeant missiles) as much as possible for R&D tests.

Fly as many of the 3 F-1 payloads as necessary, singularly or with E-1, to get one successful for 36 hours at earliest possible date.

Fly as many of the 4 F-2's as necessary to get two successful orbits with Thors.

Initiate a vigorous R&D program to develop improvements, modifications and extensions, etc., to achieve USIB requirements and provide for at least one flight with these capabilities inthe revised development plan.

X Management Notes:

"Further problems were introduced by the assignment of the management of SAMOS to a group that, eminently successful in the administration of ICBM, extended the same techniques to a different project. The fact that the R&D techniques for this project had to be very different was not, and is still not, fully recognized. The knowledge of reconnaissance, techniques, and systems in BMD was limited to a very small number of people. For this reason in particular, the management group found it difficult to establish a position of leadership and became responsive to a number of outside forces."

"The fact is that, within the USAF, there are officers and civilians with a very high degree of technical competence whose services were neither sought nor welcome. There is also within USAF a well-developed R&D management capability for projects of this type."

"For the above reasons, it is viewed with alarm the creation of a new organization, either outside or within the Air Force, that does not use the talents available at WADD, Rome, ADC, and Hq USAF. It would also be of concern if much confidence were placed upon the ability of an unproven and not-yet-staffed organization like Aerospace in establishing immediately an effective and efficient engineering supervision over the project." "Several months will be necessary before Aerospace's influence should be reckoned with."

RECOMMENDATIONS

1. "Despite errors of present USAF management group," lessons have been learned, things are improving--make existing organizations work rather than make radical changes at this time.

2. Reinforce BMD with more officers with reconnaissance [illegible] staff positions consistent with the high priority of the project.

3. Bring WADD and RADC into the direct management structure, give their advice greater weight, revise administrative procedures to permit response to special projects on a timely basis. If this not acceptable, reassign appropriate staff sections of those organizations to BMD.

4. Keep in mind policies, guidance and decisions by USAF in judging Lockheed performance.

C O P Y

SECRETARY OF DEFENSE

16 June 1960

MEMORANDUM FOR SECRETARIES OF THE ARMY, NAVY AND THE AIR FORCE

SUBJECT: Coordination of Satellite and Space Vehicle Operations (U)

Reference is made to the Secretary of Defense's memorandum of September 18, 1959, subject as above.

The decisions set down in the referenced memorandum are reaffirmed. Additionally, it is desired to emphasize the establishment of a joint military organization for control over operational space systems does not appear necessary or desirable at this time.

With specific reference to the first full paragraph on page 3 of the September 18, 1959, memorandum, the appropriate Military Department will include in its detailed plans for a particular system not only the user relationships with unified and specified commands and other appropriate agencies, but also, where applicable, provision for the exercise of appropriate operational authority by the unified and specified commanders responsible for the functional areas concerned.

S/Gates

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Reply to
Attn of: RDY

14 June 1960

SUBJECT: Revised SAMOS Development Plan

TO: AFBMD

1. The attached letter, subject: (U) Exploitation of Initial SAMOS data, dated 1 June 1960, from Headquarters USAF (AFDSD-AT) to ARDC, requires that this command submit revisions of the SAMOS Development Plan to the Air Force Ballistic Missile Committee. The contents of this letter were discussed with personnel of the Air Force Ballistic Mission Division and the Strategic Air Command during a visit to AFBMD by Colonel Ralph J. Nunziato and Colonel Norman C. Appold of this headquarters on 2-3 June 1960. The Air Force Ballistic Missile Division is directed to comply with the provisions of the letter for this command.

2. The presentation of the revised SAMOS Development Plan shall be given to the Air Force Ballistic Missile Committee on or about 15 July 1960. This same presentation shall be given to this headquarters prior to that date.

/s/
JAMES FERGUSON
Major General, USAF
Vice Commander

1 Atch
Ltr, subj: Exploitation
of Initial SAMOS Data,
dtd 1 Jun 60 (S)

CLASSIFICATION OF THIS DOCUMENT
WILL BE DOWNGRADED TO Unclassified
UPON REMOVAL OF ENCLOSURES.

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AFDSD-AT

1 June 1960

(U) Exploitation of Initial SAMOS Data

ARDC

INFO TO: CINCSAC ADC AMC AFBMD

1. By letter of 20 April 1960, the Director of Defense, Research and Engineering approved in principle the Researbh and Development Plans for DISCOVERER, SAMOS AND MIDAS, dated 15 January 1960. Separate correspondence as to specific changes and funds pertaining to this approval is being prepared; however, questions of operational command, operational facilities and user relationships for the SAMOS reconnaissance satellite continue to be matters of considerable discussion.

2. The Under Secretary of the Air Force directed on 27 May 1960 that the R&D exploitation and operational plans for SAMOS be re-evaluated. The Under Secretary stated that there is considerable technical uncertainty as to the character and quality of the information that may be obtained by the different payloads of this system and that the operational interest and the character of the initial operational programs will be strongly conditioned by the results of the R&D program. He noted that a very elaborate plan had been originally conceived for the operational control, data handling, data utilization, data volume, and data displya elements of the SAMOS and MIDAS operational systems, but that approval of such a plan with authorization for expenditure of funds has not been fobthcoming. This delay has concurred because of concern that the assumptions on such items as technical capabilities, schedules, data quality, frequency of coverage, payload reliability and lifetime, computer requirements, optimum camera types, etc., are open to considerable question and can affect in a major way the type of operational system that will ultimately be required. If, as a result of the R&D experimental flight program, recovery rather than readout turns out to be the best primary means for satisfying the bulk of the operational requirements, then the ground complex required for handling such data will be enormously simpler than if complete reliance is placed on readout to meet these requirements.

3. It is directed that a revised SAMOS Development Plan be prepared and submitted as soon as possible within the ground rules specified below. Deviations for valid reasons will be considred and may be presented as alternate plans.

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a. In order to have parallel R&D tests of readout and recovery systems, re-examine all applicable camera equipment, both on the shelf and in development, and make recommendations for the introduction of an additional recoverable payload development program with associated schedules and cost.

b. Endeavor to achieve the earliest flight dates for the different payloads with priorities in this order: photographic recovery, photographic readout, ferret. Consideration is to be given to possible delaying elements and added insurance against such delays.

c. Make provision for the minimum essential capability to handle in a reasonable fashion any operational take from the R&D flights:

(1) Include facility details, schedules, costs, manpower, and subsystem descriptions.

(2) Initial readout is limited to two sites.

(3) No wide-band data links authorized except Vandenberg-Sunnyvale.

(4) No provision is to be made for alternate satellite control centers: control to be exercised originally from Sunnyvale center.

(5) Capability will be limited to that required to handle one operating readout satellite at a time.

(6) System should be planned to permit growth capacity if R&D program results are promising and decision is made later to use readout primarily.

(7) Processign capability should be adequate for recovered as well as readout data.

(8) Personnel staffing and training should be geared to the modified program . The present activities in this regard appear to be completely out of scale and out of phase time-wise.

(9) Provision will be made only for essential elements of subsystem I. Complexity and computer requirements introduced into this subsystem as a result of ferret payloads should be carefully reassessed. The very limited value of possible data from F-1 and F-2 militates against sophisticated data handling system/ Subsystem I appears to have been greatly over-engineered, at least for the ferrent aspects of the program.

(10) Computer programming problems, schedules and computer requirements for photographic readout payloads will be re-evaluated to determine whether it is reasonable to anticipate extensive pre-determined selective area coverage on request by intelligence in the R&D flights now scheduled. The interim facility requirements should be planned accordingly.

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d. Determine the effects of the above on MIDAS and prepare necessary revisons to the MIDAS plans.

4. The proposed SAMOS interim operational capability should be located in the area whese it is desired to establish the final operational facility and control center, if appropriate, or can consist of an augmentation to the R&D capability with Air Force personnel rather than contractor personnel responsible for the operation. The plan for this capability must include recommendations for its location with justification for the choice. The current plan is to use a very small portion of the old Martin bomber plant in Omaha with overlapping control systems for MIDAS and SAMOS. The Under Secretary questions the desirability of this plan and reports that CINCNORAD believes this is unacceptable and that MIDAS control, readout, display, etc., must be integrated in a common location with other defense subsystem elements such as thosd related to BMEWS. Therefore, questions of the following types must be considered in making a new plan for the interim operational capability:

a. Should the Air Force plan ultimately to establish the complete operational data handling, display and control elements of SAMOS and MIDAS at the old Martin Bomber Plant?

b. If not, or if there is serious question as to such desirability, is it sound to reactivate a minute area of this large plant for the interim operational equipment?

c. Should the entire complex be considered as basically a "peacetime" operation with survivability of all or part of the equipment of little importance.

d. Is it necessary or desriable to co-locate data handling and processing facilities with future control centers and should the SAMOS and MIDAS control centers be integrated?

5. Request this headquarters be notified of the earliest possibledate that the requested plans can be formally submitted for appropraite beifings and presented to the Air Force Ballistic Missile Committee. ARDC is to act as team captain for the preparation of these plans with other commands participating as necessary. Further guidance will be provided by this headquarters on the questions in paragraph 4.

ROSCOE C. WILSON
L. General, USAF
Deputy Chief of Staff, Development

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MEMORANDUM FOR UNDERSECRETARY OF THE AIR FORCE

SUBJECT: SAMOS R&D Operational Plans

I understand that you have requested the Air Staff to reappraise certain of the controversial problems associated with the various SAMOS sub-programs involving both the development phase and the early operational exploitation of SAMOS product.

This office regards this as a matter of great importance, and, in addition, has been asked to report to the NSC with regard to the possibility of speeding up the acquisition of useful product.

I, therefore, request that as soon as possible, but not later than the first week in July, the Air Force present to my office the revisions in the program resulting from the current reappraisal.

/s/ Herbert F. York

cc: Deputy Secretary of Defense
Chief of Staff, USAF
Mr. John Rubel
Office of Special Projects

York/jb
79111
6 Jun 60

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8 May 1960

MEMORANDUM FOR THE CHIEF OF STAFF, USAF

SUBJECT: Management of Ballistic Missile Programs

I would like to confirm our present understanding relative to ballistic missile management procedures which have been discussed over the past weeks.

The Secretary, after consideration of the Air Staff proposal to modify the Gillette procedures, decided that it would be undesirable to accept the Air Staff recommendations at this time. The reasons for his decision related to the fact that the present modified Gillette procedures appear to be working very well and that, under the circumstances, changes should be weighed very carefully. Additionally, he expressed some concern over certain specific aspects of the changes proposed. He did feel, however, that it would be worthwhile to initiate on a trial basis a modification to our present procedures in order to permit a more effective evaluation of the proposed Air Staff changes before implementing a policy change. This trial scheme would involve a procedure whereby the responsible command, for example, ARDC, would initially present their recommendations directly to the Ballistic Missile Committee, who would however take the recommendations under advisement pending Air Staff review and analysis. Upon completion of the appropriate staff work, the Air Staff recommendations would be presented to the Ballistic Missile Committee, who would then make the necessary decisions.

The Secretary further felt that in the case of systems in which the development work is essentially complete, such as Thor and Atlas-D, it would be reasonable to handle these through regular Air Staff procedures. The Thor program has already, of course, been reoriented in this fashion and consideration could be given to the timeliness of reorienting the Atlas-D into regular channels.

The Air Staff recommendations made in reference to this problem at the presentation today do not appear to be in accordance with this decision of the Secretary. It is recognized that the duties of the ACS/GM as now formally stated probably do not properly define his functions and responsibilities on the basis of present procedures. It would appear therefore that, in any event, this statement should be amended, and I would like to review a revision at such time as a draft is available.

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The Air Staff recommendations are not approved at this time since the Secretary's proposed trial plan will, I believe, provide the best answers as to a final plan which might most adequately meet the needs. Accordingly, it is agreed that the trial plan should be implemented and that the complete program reviews scheduled shortly for Atlas, Titan and Minuteman would be a very appropriate initial subject for this experiment. I would anticipate that after a period of 2 or 3 months it would be worthwhile to again review the situation in order to determine, on the basis of this experience, what implementing actions should be taken in the direction of a formal revision of our present ballistic missile management procedures.

Upon your recommendations, transition of the Atlas-D program into normal Air Staff channels can be initiated as soon as desired.

The Trial plan should also be applied to the major space programs, namely, Discoverer, Samos and Midas. No objection is raised to a combination of the Executive Secretaries for the missile and space programs. Combination with the Air Council Secretary is not considered appropriate until such time as a final decision is made as to revisions in procedures.

signed

Joseph V. Charyk
Acting Secretary of the Air Force

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C O P Y ~~SECRET~~ C O P Y

THE SECRETARY OF DEFENSE
WASHINGTON
NOV 17, 1959

MEMORANDUM FOR THE SECRETARY OF THE AIR FORCE

SUBJECT: Transfer of the SAMOS Development Program to the Department of the Air Force

REFERENCE: Memo for SecDef from SECAIR, 6 Nov 59, Subject as above.

In accordance with the request contained in the referenced memorandum, transfer of program responsibility for SAMOS from the Advanced Research Projects Agency to the Department of the Air Force is approved effective immediately.

It is understood that the program will be conducted essentially in accordance with current ARPA plans pending approval of an Air Force Development Plan to be submitted to theDirector of Defense Research and Engineering by 15 January 1960. It is requested that the revised development plan emphasize physical recovery and provide the initial launch of a recoverable payload well in advance of the present schedule (early FY '62). It is further requested that additional steps beyond the current ARPA development plan toward the achievement of other objectives in the SAMOS program and that steps beyond the Research and Development phase be held in abeyance pending specific approval from my office.

It is also understood that theAir Force will submit to me by 15 January 1960, in accordance with the referenced memorandum, an operational plan for the SAMOS system including details of user relationships.

Separate action will be taken by ASD (Compt) to arrange for the necessary adjustments in the appropriate FY '60 and FY '61 funds.

/s/ Gates
DEPUTY

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SAFS File

DS 59-3965

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24 Oct 59

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FM COMDR ARDC ANDREWS AFB MD
TO AFBMD LOS ANGELES CALIF
BT

SMCLN WDZ, COL CURTIN SMCLN WDZS, COL ODER SMCLN WDZA, COL WORTHMAN. THIS MESSAGE IN TWO PARTS. PART I. REFERENCE IS MADE TO MESSAGE CITE CLN RDGRB-20-10-1-E, DATED 20 OCTOBER 1959. PART II. QUOTED FOR YOUR INFORMATION AND ACTION IS A MESSAGE FROM USAF CITE CLN AFDAT 1259/59. QUOTE SECRET FROM AFDAT 1259/59. THIS MESSAGE IN FOUR PARTS. PART I. ON 18 SEP 59 THE SECRETARY OF DEFENSE APPROVED THE ASSIGNMENT TO THE AIR FORCE OF THE INTERIM SATELLITE EARLY WARNING SYSTEM/MIDAS/AND PHASE I OF THE SATELLITE RECONNAISSANCE SYSTEM, PRIOR TO ASSUMING THE RESPONSIBILITY FOR THESE PROGRAMS, THE DEPARTMENT OF THE AIR FORCE WILL SUBMIT TO THE SECRETARY OF DEFENSE FOR HIS APPROVAL DETAILED PLANS FOR THESE SYSTEMS, INCLUDING USER RELATIONSHIPS WITH THE UNIFIED AND SPECIFIED COMMANDS AND OTHER APPROPRIATE AGENCIES. PRIOR TO APPROVING THESE PLANS, THE SECRETARY OF DEFENSE WILL REFER SUCH PLANS TO THE JOINT CHIEFS OF STAFF FOR COMMENT AND RECOMMENDATIONS. THE DIRECTOR OF DEFENSE RESEARCH AND ENGINEERING WILL REVIEW AND APPROVE THE DETAILED RESEARCH AND DEVELOPMENT PROGRAMS UTILIZING WHERE APPROPRIATE THE SUPPORT OF ARPA. PART II. FOR THE PURPOSE OF PREPARING THE NECESSARY PLANS FOR SUBMISSION BY THE DEPARTMENT OF THE AIR FORCE TO THE SECRETARY OF DEFENSE, THE FOLLOWING PLANNING RESPONSIBILITIES ARE ASSIGNED CLN.

A. SAMOS DEVELOPMENT PLAN WILL BE PREPARED BY ARDC, SAMOS OPERATIONAL PLAN WILL BE PREPARED BY AMC.

B. MIDAS DEVELOPMENT PLAN WILL BE PREPARED BY ARDC, OPERATIONAL PLAN FOR MIDAS WILL BE PREPARED BY ADC/IN COLLABORATION WITH SAC AND ARDC/, AND LOGISTICS SUPPORT PLAN WILL BE PREPARED BY AMC.

FULLEST COLLABORATION OF ALL PARTICIPANTS IN THE FORMULATION OF THE ABOVE PLANS IS DIRECTED. PART III. THE FOLLOWING GUIDANCE AND PLANNING ASSUMPTIONS WILL BE USED BY PLANNING COMMANDS CLN.

A. A SINGLE AIR FORCE PLAN FOR SAMOS AND ANOTHER FOR MIDAS WILL BE PREPARED FOR SUBMISSION TO THE SECRETARY OF DEFENSE BY THIS HEADQUARTERS BASED ON THE PLANS PROVIDED BY COMMANDS INDICATED IN PART II ABOVE,

B. PLANS WILL BE SUBMITTED TO THIS HEADQUARTERS TO ARRIVE NLT 23 NOV 59 WITH THE VIEW TO SUBMISSION OF PLANS TO THE SECRETARY OF DEFENSE BY THIS HEADQUARTERS NLT 1 DEC 59.

C. PLANNING COMMANDS WILLASSUME, FOR PLANNING PURPOSES, THAT SAMOS WILL BE THE OPERATIONAL RESPONSIBILITY OF SAC AND MIDAS WILL BE THE OPERATIONAL RESPONSIBILITY OF ADC. SEE PLANNING ASSUMPTIONS J THROUGH N BELOW.

D. SAMOS OPERATIONAL PLAN WILL INCLUDE USER RELATIONSHIPS WITH INTELLIGENCE AGENCIES AND THE UNIFIED AND SPECIFIED COMMANDS.

E. MIDAS OPERATIONAL PLAN WILL INCLUDE USER RELATIONSHIPS WITH AFCIN, OTHER INTELLIGENCE AGENICES, CINCNORAD, SAC, AND OTHER UNIFIED AND SPECIFIED COMMANDS.

F. ALL PLANS WILL INCLUDE ESTIMATED COSTS BASED ON BEST DATA PRESENTLY AVAILABLE TO PLANNING COMMANDS.

G. PLANS WILL REFLECT MAXIMUM USE OF RESOURCES COMMON TO SAMOS AND MIDAS AND OF FACILITIES AVAILABLE TO COMMANDS.

H. ASSUME THAT FOLLOWING COMPLETION FOR CONTRACTOR LAUNCHES, EARLY MILITARY LAUNCHES OF SAMOS AND MIDAS WILL BE ACCOMPLISHED BY THE 6594 TEST WING.

I. PLANS WILL REFLECT AGREED EARLIEST LOGICAL DATE OF TRANSFER OF 6594 TEST WING FROM ARDC TO SAC AFTER ATTAINMENT OF INITIAL OPERATIONAL CAPABILITY FOR SMAOF BY ARDC.

J. RESPONSIBILITY FOR LAUNCH AND ORBIT INJECTION OF BOTH SAMOS AND MIDAS WILL BE ASSIGNED TO SAC UPON GAINING 6594 TEST WING.

K. SAMOS-MIDAS TRACKING AND ACQUISITION STATIONS WILL BE CONTROLLED AND MANNED BY SAC WITH ADC REPRESENTATION AS REQUIRED.

L. WHEN BOTH SYSTEMS BECOME OPERATIONAL LAUNCH, ORBIT INJECTION, OF MIDAS SATELLITES IN ORBIT WILL HAVE PRIORITY OVER SIMILAR FUNCTIONS FOR SAMOS VEHICLES SHOULD CONFLICTS ARISE.

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A. MIDAS READOUT STATIONS WILL BE MANNED AND OPERATED BY ADC PERSONNEL. ADC WILL PLAN FOR SIMULTANEOUS READ-TI DATE DISPLAY AT BOTH NORAD, COC AND SAC HEADQUARTERS.

M. FOR CINCNORAD ADC WILL HAVE OPERATIONAL RESPONSIBILITY FOR ALL TECHNICAL OPERATIONS COMMANDS WHICH ARE GIVEN TO THE MIDAS SATELLITE BY SAC CONTROL CENTER AFTER MIDAS SATELLITE BY SAC CONTROL CENTER AFTER MIDAS SATELLITES ARE PLACED IN ORBIT BY SAC. PART IV. IT IS RECOGNIZED THAT MANY FACTORS ARE XXXXXXX NOT KNOWN AT THIS TIME. HOWEVER, XXXXXXXX EARLY APPROVAL BY THE SECRETARY OF DEFENSE OF AIR FORCE CONCEPTS FOR THE DEVELOPMENT, OPERATIONS AND SUPPORT OF THESE SYSTEMS IS NECESSARY TO REALIZE THE MAXIMUM BENEFITS FROM THE PROPOSEDASSIGNMENT OF THESE SYSTEMS TO THE AIR FORCE.
UNQUOTE.

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FM COMARDC
TO COMAFBMD ARDC LOS ANGELES
BT

//~~CONFIDENTIAL~~//FROM RDGSB-20-10-1-E. QUOTED FOR YOUR INFORMATION IS THE FOLLOWING MEMO FOR THE CHIEF OF STAFF FROM THE SECRETARY OF THE AIR FORCE, DATED 13 OCT 59. QUOTE CLN REFERENCE IS MADE TO THE PROPOSED TRANSFER OF DISCOVERER, SAMOS, AND MIDAS WEAPON SYSTEM DEVELOPMENT AND OPERATIONAL PROGRAM RESPONSIBILITY TO THE AIR FORCE, AS WELL AS OTHER RESPONSIBILITIES WHICH WILL RESULT FROM OTHER SERVICE SPACE RESPONSIBILITIES. WITH RESPECT TO THESE PROGRAMS AND RESPONSIBILITIES, I WISH TO HAVE ALL ACTIONS ENCOMPASSED WITHIN THE FRAMEWORK OF THE AIR FORCE BALLISTIC MISSILES COMMITTEE IN THE SAME MANNER AS OUR BALLISTIC

PAGE TWO RJEZFF 12C
MISSILE PROGRAMS ARE NOW BEING HANDLED. IT MAY BE APPROPRIATE TO DESIGNATE AN AIR STAFF MEMBER AS THE SECRETARY OF THE AIR FORCE BALLISTIC MISSILE COMMITTEE FOR SPAC E MATTERS. IT WOULD ALSO SEEM APPROPRIATE TO INCLUDE THE DEPUTY CHIEF OF STAFF, MATERIAL, AND DEPUTY CHIEF OF STAFF, DEVELOPMENT, AS MEMBERS OF THE AIR FORCE BALLISTIC MISSILE COMMITTEE. END QUOTE. THIS HQS IS TAKING FOLLOW UP ACTION WITH USAF TO ASCERTAIN IMPLEMENTING DETAILS AND PROCEDURES. YOU WILL BE ADVISED OF THESE RESULTS AT AN EARLY DATE.
bt
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AFOOP

ACIC Participation in SAMOS (UNCL) OCT 21 1959

AFCS

1. Most USAF participation in SAMOS development and operational planning has been confined to Headquarters USAF, ARDC, SAC, AMC and TAC. Since the Secretary of Defense has stated that SAMOS will be assigned to the USAF, and since the system design and fabrication has progressed to a point that the operation and output can be described, it is necessary to expand the planning for intelligence exploitation.

2. A SAMOS Exploitation Plan was forwarded to ARDC and SAC on 11 August 1959 for consideration during development. This Exploitation Plan has been edited and is attached for your information. Also attached is a copy of a letter, subject: "Design Concept for Sentry Subsystem I" which was sent to BMD with information copies to ARDC, RADC and SAC on 17 March 1959.

AFBMD

3. The content of both the attached documents is still pertinent. Specifically and in accordance with the assigned mission, ACIC will perform the following tasks:

a. Duplicate and distribute SAMOS Photo Reconnaissance and related materials to specified DOD agencies as required.

b. Perform detailed exploitation to provide improved:

(1) Geodetic positional information

(2) Air target materials

(3) Navigation and planning charts

(4) Air facility data

(5) Other related intelligence data

c. Accomplish related services as follows:

(1) Provide geodetic, cartographic, photographic, air facility and related intelligence data to SAC as required to support the building of basic source materials for intelligence exploitation.

(2) Provide detailed technical assistance to SAC concerning photogrammetric, cartographic and geodetic information, equipment, techniques and procedures.

(3) Provide computer and mathematical assistance relative to geodetic problems, projections, grids, spheroid and datum adjustments.

(4) [illegible] Library Services

d. Accomplish original processing and exploitation of charting photography accomplished as the result of development initiated by SOR 80-4.

4. A plan for exploitation of [illegible] by SAC including but not limited to the following factors is required:

a. Organizational and functional alignment

b. Procedures and techniques

c. Equipment

d. Personnel

e. Training

f. Facilities

g. Communication

h. Security

i. Funding

j. Inter-Command Liaison

k. Reports and products, including geodetic, cartographic, photographic, air facility and related intelligence data.

5. A requirement for a Communications Net between AFIC, ATIC, SAC and ACIC has been identified within Headquarters USAF. This net, when established will be used for all coordinated intelligence production, including that from SAMOS. It will provide:

a. Computer to computer interrogation

b. Person to person secure teletype

c. TV display to TV display with secure voice communications for intellectual participation.

d. Terminal to terminal graphic slow scan TV facsimilie etc., of intelligence source material.

Although the programming and planning for this net is not a part of SAMOS, Headquarters USAF is coordinating this matter as appropriate with the SAMOS activity.

6. For planning purposes SAMOS photography will be handled in limited access areas and distributed according to specific production assignments.

7. Request the ACIC Plan as described in Paragraph 4, be prepared and submitted to Headquarters USAF as soon as possible but not later than 1 December 1959.

8. This Letter is classified SECRET in accordance with SAMOS Master Security Classification Guide.

FOR THE CHIEF OF STAFF:

M. A. PRESTON
Major General, USAF
Director of Operations
Deputy Chief of Staff, Operations

2 Atch
1. SAMOS Exploitation Plan (S)
2. Cy Ltr to BMD, 17 Mar 59
Subj: Design Concept for
SENTRY-Subsystem I (S)

Cys to: ATIC (Separate Cover)
ACIC
SAC
AFBMD
RADC

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SAMOS EXPLOITATION PLAN

1. The SAMOS reconnaissance system will provide photographic and electronic intelligence source material for production of intelligence reports, studies and estimates; geodetic data, missile trajectory tapes, trays or matrixes, air navigation and target materials, and topographic maps.

Effective exploitation of the latent intelligence received at the tracking and acquisition stations will be dependent on the advance preparation for processing and distribution of specific source material to specific locations. It will also be dependent on the advance preparation for timely production, exchange and distribution of intelligence information in narrative, digital or graphic form as required for mutual support and as appropriate to avoid unnecessary duplication between the production agencies.

The following governmental agencies and military organizations have a need for varying amounts and kinds of intelligence source material to be obtained by this system:

Hq USAF

AFCIN

Air Force Intelligence Center

Aero Space Technical Intelligence Center

Aeronautical Chart and Information Center

Strategic Air Command

Department of the Army

Department of the Navy

Central Intelligence Agency

National Security Agency

Exploitation will be achieved in three separate but related phases. The first phase to be accomplished within the SAMOS Technical Operation Control and Intelligence Data Processing Facility will produce information required for command of satellites on orbit and initial intelligence. These functions will be performed by SAMOS Equipment. The second phase to be accomplished to some degree by all intelligence producing agencies

Atch #1

using 438L or existing capabilities will produce intelligence for support of the national security policy and for support of a quick reaction capability. Third phase exploitation, also using 438L or existing capabilities, will be accomplished to some degree by all participating agencies and will produce studies that result from detailed search and analysis of source material collected by SAMOS and other intelligence collection means.

Information derived from the ferret reconnaissance (sub-system F) will be analyzed by SAC and disseminated as an intelligence product. Recorded, refined and calibrated electronic signals will be forwarded to the Aero Space Technical Intelligence Center for technical analysis. Other recorded emissions will be distributed to appropriate agencies.

Photography acquired from reconnaissance (sub-system E) will be processed and distributed for use as required for source material in the production of intelligence information, air navigation and target materials by AFIC, SAC, ACIC, Dept of the Army, Dept of the Navy, and Central Intelligence Agency.

The Photo Records and Services Division of ACIC will integrate the photography into the active USAF library and satisfy legitimate requests for additional copies.

Standing production control and coordination channels will be used to effect required intelligence action.

PHASE II AND PHASE III EXPLOITATION

During Phase I, initial intelligence and selected source material will be distributed from the SAMOS Intelligence Data Processing Facility to other organizations and agencies. After receipt of these other organizations and agencies, the reconnaissance data from SAMOS will be integrated during Phase II and Phase III with source material collected by other means and lose its identity in the intelligence products. These intelligence products will be produced and disseminated through standing production and dissemination channels using 433L or existing capabilities.

The items to be produced and disseminated during Phase II will influence National Security Policy, Strategic Warning, and Quick Reaction Activity. Some of these items are:

1. Information feedback needed for effective flight control of satellite on orbit.
2. Photo Intelligence Reports
3. Selected Intelligence Reports and Briefs
4. Air Order of Battle Reports
5. National Intelligence Estimates
6. ELINT Order of Battle
7. Naval Order of Battle
8. Missile Order of Battle

The items to be produced and disseminated during Phase III Exploitation will involve a detailed and systematic search for and evaluation of intelligence material and data from many sources. Examples are:

1. Detailed Photo Intelligence Reports
2. Warning Intelligence
3. Technical Intelligence
4. Target Intelligence
5. Bombing Encyclopedia
6. Target Data Inventory

7. NIS Gazetteers
8. JN Charts
9. World Aeronautical Charts
10. Air Target Charts
11. Coverage Indexes
12. Requirements Lists
13. Geodetic Data Sheets
14. Missile Target Data Sheets

17 MAR 1959

COPY

SUBJECT: ~~(S)~~ Design Concept for SENTRY - Subsystem I

TO: Commander
Air Force Ballistic Missiles Division
P. O. Box 292
Inglewood, California

1. Reference is made to AFCIN message 51828 dated 9 December 1958 and related conferences convened in the Pentagon, 27 January and 11 March.

2. The following concept for design of Subsystem I should guide development so as to provide a capability required to exploit intelligence data collected by SENTRY.

"Design Concept for Intelligence Data Processing."

a. The intelligence data processing capability to be developed to process data collected by the subsystems of SENTRY will improve the ability of the USAF to initially process raw photographic and elint data; store and retrieve intelligence source material used by Photographic Interpreters and Electronic Analysts; interpret photography and analyze electronic intercepts collected by SENTRY; prepare, extend and improve geodetic networks and reproduce items prepared during accomplishment of the above. It is not intended that the equipment developed as Subsystem I necessarily be used as an entity.

b. The accepted intelligence data processing equipment developed as a part of SENTRY will be considered for procurement and installation in reconnaissance technical organizations, ACIC and AFCIN. It will be recommended for procurement by other intelligence agencies. Therefore, the processing, storage, recall, and viewing equipment must improve or replace equipment now in use that performs the same functions but which does not have the capacity for the SENTRY collection capability.

c. For example, Minicard equipment is being procured for use by SAC, ACIC, AFCIN, and other intelligence agencies, IBM equipment is being used for storage and retrieval of evaluated intelligence data. The data collected by SENTRY must be prepared for use in these systems without transformation. However, the presence of Minicard cannot be allowed unduly to influence the selection of storage and retrieval equipment developed as Subsystem I of WS 117L. It is imperative that equipment being developed by the USAF for storage and retrieval of photography for intelligence purposes be acceptable for

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Atch # 2

Ltr to BMD, Sbj: (S) Design Concept for SENTRY - Subsystem I (cont

installation in the film libraries of AFCIN, SAC and ACIC. Equipments for this purpose which are a part of SENTRY and 438L must either be the same or be capable of inter-change in recall of information and imagery without transformation.

d. All intelligence data processing will be accomplished within SAC, AFCIN, ACIC and other existing intelligence agencies. No intelligence information will be produced in contractor facilities. Therefore, the acceptability of Subsystem I equipment will be determined by use of photography and electronic data selected for a controlled simulation program.

3. The Subsystem I Design Concept (Inclosure #1) submitted by BMD appears to generally conform with the above stated concept and the SENTRY exploitation plan forwarded by AFCIN to BMD and ARDC 11 August 1958. However, the scope of Subsystem I development should be focused on the functions described in paragraph 2.a. above, instead of the activity described as Phase I in the BMD document.

4. This correspondence is classified ~~TOP SECRET~~ in accordance with the Master Security Classification Guide - Weapons Systems 117L dated 25 August 1958.

FOR THE CHIEF OF STAFF:

1 Incl
(S) SS I Dsgn Concept
(w/d)

/s/
HAROLD E. WATSON
Major General, USAF
Deputy Assistant Chief of
Staff, Intelligence

cc:
ARDC
SAC
RADC

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//CONFIDENTIAL//CITE DEF 963459 FROM ARPA EEE SGD CLARK EFFECTIVE IMMEDIATELY SUBJ PROGRAM IS REDESIGNATED SAMOS. PURPOSE OF NEW DESIGNATION IS TO IDENTIFY RECONNAISSANCE PROGRAM" WITH INNOCUOUS NAME THAT DOES NOT RPT NOT HAVE MISSION ASSOCIATION. SAMOS NAME IS UNCLASSIFIED. SAMOS USED IN CONJUNCTION WITH RECONNAISSANCE SATELLITE PROGRAM ALSO UNCLASSIFIED. HOWEVER, ATTENTION IS INVITED TO FACT THAT INTELLIGENCE PROGRAMS MUST BE PROTECTED AS SUCH. ALL PUBLIC STATEMENTS EE OTHER THAN SIMPLE CONFIRMATION THAT SENTRY HAS BEEN REDESIGNATED SAMOS WILL BE CLEARED WITH ARPA. ALL INFORMATION RELATIVE TO SCHEDULES IS CLASSIFIED. WITHIN

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CLASSIFIED CHANNELS EEEEE EFFORT WILL BE MADE TO REDUCE PROGRAM DATA ACCESS AND TO RESTRICT PROGRAM INFORMATION TO EEEEX A RIGID NEED-TO-KNOW BASIS. STRICT ADHERENCE TO THESE MEASURES MUST BE EFFECTED. POSITIVE ACTION EEEE UNDER APPROPRIATE SECURITY REGULATIONS AND DIRECTIVES WILL BE TAKEN RELATIVE TO UNAUTHORIZED RELEASES. THIS INFORMATION SHOULD BE DISSEMINATED THROUGHOUT THE DEPARTMENT OF DEFENSE AND TO ALL PERTINENT AGENCIES AND CONTRACTORS
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ADVANCED RESEARCH PROJECTS AGENCY
Washington 25, D. C.

ARPA Order No. 48-59

December 16, 1958 Date

TO: The Secretary of the Air Force
Washington 25, D. C.

1. Pursuant to the provisions of DoD Directive 5105.15, dated February 7, 1958, you are requested to continue on behalf of the Advanced Research Projects Agency with the project specified below. Additional details and directives may be issued by ARPA from time to time and will become a part of this Order when so specified.

2. The study, development, and launch operations associated with the Thor program, heretofore included in ARPA Order No. 9-58 for the Sentry Program, are to be continued as an independent project identified as the Discoverer-Thor Project (U).

3. At the conclusion of the present program review, the costs allocable to this project since July 1, 1958, which have been charged to ARPA Order No. 9-58, shall be identified and transfered to this Order, at which time the funds shall be adjusted by ARPA as appropriate. You are requested to submit to ARPA by January 15, 1959, a financial plan which will be the basis for determining the division of funds.

4. The Director, Advanced Research Projects Agency, will provide policy and technical guidance either directly or through designated representatives. The Secretary of the Air Force will be responsible for arranging for the detailed technical directions necessary to accomplish the specified objectives and to comply with ARPA policy and technical guidance. This general relationship may be specified in greater detail by amendment to this Order if such action is necessary.

5. The Director, Advanced Research Projects Agency, and the Office of the Secretary of Defense will be kept informed of the status of work assigned under this Order by a monthly progress report and a semi-annual technical report to be prepared and submitted in accordance with procedures outlined in Attachment No. 1. These reports represent ARPA's total foreseeable requirement for recurring reports based on this Order.

6. The utilization of equipment and materials procured in connection with this project for other projects is subject to the direction of ARPA. Notwithstanding, final disposition of such equipment and materials shall be made in accordance with standard procedures. Any technical and scientific information relating to work under this Order which may be published from time to time shall give appropriate credit to the ARPA project. No scientific and technical progress and status reports on ARPA's projects or final completion reports prepared specifically at ARPA's request shall be made available to other agencies or individuals without approval of ARPA.

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WD-59-00248 Series A
Cy 1 of 2

7. Sec/Air shall be responsible for preserving the security of this project in accordance with the security classification assigned and the security regulations and procedures of the Department of the Air Force.

8. Notwithstanding any other provisions of this Order, the Secretary of the Air Force shall not be bound to take any action in connection with the performance of this work that would cause the amount for which the Government will be obligated hereunder to exceed the funds made available, and the obligations to the Secretary of the Air Force to proceed with the performance of this work shall be limited accordingly. The Secretary of the Air Force shall be responsible for assuring that all commitments, obligations, and expenditures of the funds made available are made in accordance with the statutes and regulations governing such matters, provided that whenever such regulations require approval of higher authority such approvals will be obtained from or through the Director, ARPA, or his designated representative.

/s/ Roy W. Johnson
/t/ Roy W. Johnson
Director

1 Incl.
Attachment No. 1
(not rec'd)

10 DEC
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MEMORANDUM FOR THE DIRECTOR OF ADVANCED RESEARCH PROJECTS AGENCY

SUBJECT: Intelligence Requirements for SENTRY

1. Reference is made to the memorandum, Subject: Intelligence Requirements For SENTRY, dated 10 November 1958 and subsequent discussions with representatives from your office regarding reprogramming of Project SENTRY.

2. The highest priority intelligence need during the foreseeable future will continue to be intelligence related to warning of the Soviet air offensive threat. Project SENTRY's development and operational employment should be directed towards achieving a maximum return of intelligence bearing on the warning problem. To assist in project planning, the following breakdown by time periods will provide more explicit guidance in regard to the relative priority of the various collection capabilities inherent in the SENTRY program:

A. 1959-1960 Time Period - Based on present national estimates, Soviet ICBM, operational deployment will be taking place during this period. Considering the relative state of development of the several SENTRY sensor systems, it is our judgement that photo coverage of the entire Soviet Bloc represents the most urgent requirement. In order to identify missile sites during the construction period and provide information concerning the size and nature of the Soviet ICBM force, it will be necessary as a minimum to have periodic coverage of most of the Soviet Bloc with photographing of ground resolution of 20 feet or less starting in mid-1959. Repeat coverage should be accomplished at approximately 6 months time intervals through 1960, thus providing comprehensive photo coverage of the Soviet Union four times during the critical construction and deployment phase of the Soviet missile program. High priority should be placed on ELINT coverage to be conducted in conjunction with the photo mission. In this respect the first emphasis should be placed on a general coverage of the electronics spectrum associated with Soviet defense forces in order to provide information essential to our offensive strike plans. As the state of the art permits, the effort should be directed towards new and unusual signals related to Soviet research and development program. Development of an infrared surveillance and warning capability should proceed on a highest priority basis during this period. The operational need for early warning which may be derived from IR will become the highest priority requirement as the Soviet ICBM force develops in strength and reliability to a point where it assumes the proportions of a direct and immediate threat. In this connection, identification and location of the Soviet operational missile force by means of photography should contribute to the usefulness of the IR surveillance system when it becomes operational.

B. 1961-1962 Time Period - During this period the operational infrared surveillance requirement will assume ascendency over the visual photography as the highest priority. Emphasis on the research and development program for the infrared surveillance system during the preceding period should have been directed towards the achievement of a fully reliable infrared operational system by the beginning of calendar year 1961 or earlier. Photography during this period will be needed on a selective basis with resolutions of 20 feet on a side or better. The photo system should be capable of obtaining photo coverage and readout within 24 hours on selected objectives anywhere within Soviet territory. Research and development during this period should continue towards the development of a photographic capability which will provide ground resolutions of 5 feet or less and greater operational flexibility capable of obtaining timely coverage of selected objectives anywhere within the Soviet Bloc. Development of the ELINT system should parallel photographic development in regard to flexibility and selectivity. The readout and processing capability for both photography and ELINT must be as effective as that of the airborne sensors so as to provide for a means of rapid production of the end products.

3. The above statement of requirement has been coordinated with Central Intelligence Agency and is fully concurred in by that agency.

signed

General Walsh

12-10-58

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ADVANCED RESEARCH PROJECTS AGENCY
Washington 25, D. C.

5 December 1958

MEMORANDUM FOR THE UNDER SECRETARY OF THE AIR FORCE

SUBJECT: DISCOVERER-THOR Project and SENTRY Programs

In accordance with our agreement of yesterday, it is requested that the following instructions be forwarded to BMD concerning the DISCOVERER-THOR project and SENTRY programs:

"Recent fiscal determinations incident to the formulation of the 1960 Budget have necessitated the modification of the SENTRY Development Program. Furthermore, the inception of the DISCOVERER Program as it is constituted from elements also creates a requirement for program management determinations.

"In response to these influences, the ARPA staff has proposed a reorientation of the two programs. The details of the proposal have been furnished to Program Management personnel of the Air Force Ballistic Missile Division. Acknowledging the tenuous nature of this proposal until further detailed study can be made by the Project Personnel, it is the purpose of this memorandum to request such a study and present the findings for our joint consideration on the 15th of December. It is our objective to reach a final determination as to the content of the programs for FY 1960 and balance of FY 1959 in their major elements by 17 December.

"The actions suggested in the ARPA proposal should each be reviewed with the objective of determining fiscal and project timing implications. Where contract cancellations are involved, an assessment of industrial impact should be made. In general, the goal should be to determine the practicality of making the downward adjustments suggested, the cost in time and money for implementing the new program elements suggested, and alternative suggestions where program elements suggested by the ARPA staff are determined to be impractical.

"For the purposes of this review, it should be assumed the development resources available will amount to $213.3 million in FY 59 and $160 million in FY 60. Intelligence requirements as they might influence the evaluation should be based on the best information that can be made available in the time period provided. It is recognized that fully refined information cannot be made available by the dates suggested herein.

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However, it seems likely that sufficiently accurate determinations can be made as to permit major decisions which are necessary for the formulation of a final development plan.

"In the interim period, until the major program decisions are finalized, the Air Force Ballistic Missile Division should be directed to withhold any major fund commitments that go beyond the scope of the ARPA proposal. In those areas that might be designated for cancellation, no material procurements should be authorized beyond the absolute minimum necessary for preserving the continuity of engineering effort."

/s/ Roy W. Johnson

Roy W. Johnson
Director

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10 Nov 1958

SUBJECT: Intelligence Requirements for SENTRY

TO:
Commander
Air Research and Development Command
Andrews Air Force Base
Washington 25, D. C.

1. 30 September 1958, the Director, Advanced Research Projects Agency, asked for a statement of photographic and electronic requirements that represent the needs of the National Intelligence Community projected through the 1960 - 1965 operational period. The statements of requirements sent to ARPA (inclosures 1 and 2) were prepared by the Air Force Collection Requirements Board and the Ad Hoc Satellite Intelligence Requirements Committee.

2. These requirements are being forwarded to Air Research and Development Command to supplement GOR 80 dated 26 September 1958 as guidance in the development of electronic and photographic sensors and the intelligence data processing sub-system for SENTRY.

3. Beginning with the first launches scheduled for Programs II and III in 1960, the Air Force must place emphasis on the production of intelligence information collected by SENTRY to fulfill these requirements. Production of the initial intelligence information and distribution of selected source material to other intelligence production facilities will be a function of the Strategic Air Command. The Air Research and Development Command is obligated to continually assist SAC in preparing to efficiently perform this task.

4. According to the SENTRY Development Plan dated 15 September 1958, the deletion of the interim intelligence center at Offutt Air Force Base results in eighteen (18) ATLAS boosted photo and ferret vehicles being scheduled before there is a capability for intelligence data processing. The only intelligence data processing sub-system will be that under development at the Ramo-Wooldridge R and D test facility at Denver, Colorado. This facility at Denver is not considered a suitable substitute for an intelligence data processing capability at Offutt Air Force Base. It appears that Strategic Air Command must prepare to accept in early 1960, the output from sub-system E (airborne photo) and sub-system F (airborne ferret), produce intelligence information and distribute source material without or with only limited assistance from the development occurring under the sub-system I contract.

5. It is requested that the Air Research and Development Command collaborate with Strategic Air Command to provide the capability required at Offutt Air Force Base to exploit the intelligence data collected by all SENTRY vehicles on orbit.

FOR THE CHIEF OF STAFF:

James H. Walsh
Major General, USAF
Assistant Chief of Staff,
Intelligence

3 Incls.
1. ELINT Reqmt
2. Photo Reqmt
3. Extract from
Dev Schedules

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TAB "A"

REQUIREMENTS FOR ELECTRONIC INTELLIGENCE CAPABILITY OF SENTRY

1. General:

a. The electronic reconnaissance subsystem must provide the ability to intercept electromagnetic emissions from potential enemies, to return the intercepted information in a secure manner to an appropriate location, and to record against an accurate time bases this information in a form suitable for further processing.

b. Development of the electronic reconnaissance satellite will involve maximum equipment progression, utilising state-of-the art equipment without inhibitions of past techniques and custom in intercept, recording and processing. The most advanced equipment possible must be employed as early in the program as is permissible within operational considerations and equipment availability. As SENTRY reaches the operational stage, intelligence information received from the project or other sources may indicate an urgent requirement for additional types of fine line intercept systems capable of recognizing, receiving and recording specific types of highly complex signals. Provisions should be made to procure such equipment as might be required by ORC action.

c. In order for the system to provide maximum intelligence, a capability for interception of communications (COMINT) signals is desired. Integration of COMINT/ELINT functions should be provided, if feasible. The combination of both functions will allow for a more timely and economical utilization of the weapons system. Facilities shall be provided to allow programming of the collection systems from the ground for specific targets, a system directivity and selectivity versus times.

d. The operational characterisitics will be revised as additional technical information is available.

2. Operational Characteristics:

a. The system should provide receiving and recording equipment capable of intercepting land bases, shipborne and airborne electronic emissions between [redacted] if propagation will permit. Equipments covering specific bands within this range should be in easily substituted modular form.

b. The receiving and recording equipment should be of high sensitivity, low noise, high fidelity, and most modern design in keeping with the latest developments within the state-of-the-art.

c. The receivers should be capable of receiving, recognizing and providing outputs for the recording of the following types of modulation.

[redacted]

1014

[redacted] intercepted signals should be preserved to the greatest degree possible prior to demodulation and dump.

[redacted]

f. The system should incorporate a multi-channel analog recorder in addition to audio and digital recording for low order supporting data.

[redacted]

[redacted]

j. The system should also provide continual calibration data to the ground-space communications and to the data processing subsystems. This calibration data is required for the production of the most reliable intelligence information possible for the ultimate consumer.

3. Technical Characteristics Required to Satisfy Intelligence Requirements.

[redacted]

[redacted] 1014

6. Every effort should be made within operational limitations and the state-of-the-art design, to meet, as closely as possible, the technical characteristics required to satisfy the intelligence requirements as stated above.

[redacted]

b. Electronic Order of Battle search requirements.

(In the case where EOB is not established the 1st and 2nd priorities are of equal priority.) Technical search requirements will be kept under constant review in order that the requirements may be cancelled as necessary intelligence becomes available. Certain technical intelligence will be programmed or targeted against a specific location to prevent saturation of the system. Periodically the entire frequency spectrum [redacted] should be searched to prevent surprise in any given portion of the spectrum. [redacted] With regard to EOB search, there is a requirement for periodic coverage of the entire Soviet Bloc including Soviet shipping, fleet exercises, "out of area" surface and sub-surface deployments. This includes the search for new sites and re-confirmation of known sites and covers the entire frequency spectrum as listed above. The following is a list of national objective priorities for required intercepts.

[redacted] 1014

[redacted]

[redacted]

[redacted]

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[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

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TAB "B"

29 October 1958

REQUIREMENTS FOR PHOTOGRAPHIC INTELLIGENCE CAPABILITY OF SENTRY

1. At this time, there is available a tabulation of approximately 3,000 specific objectives in order of national priorities for reconnaissance. The reconnaissance objectives designated in this list require a photographic ground resolution of approximately 20 feet or better. Photography from systems limited by the state-of-the-art to a ground resolution of approximately 100 feet will be used by the Intelligence Community todevelop a photographic or cartographic base into which photography with better resolution can be integrated.

2. The tabulation of reconnaissance objectives knows as "The National Priority Reconnaissance Requirements List" is divided into interest categories which are:

[redacted]

1001

The interest categories divided by priority consist of:

[redacted]

b. 446 objectives of high priority which are directly related to Soviet war making capabilities.

c. 2564 objectives of priority interest which represent other Soviet capabilities that relate to the various elements of power.

d. Objectives which represent requirements for technical Intelligence are included in the priority listing.

e. In addition to these specific requirements which have been identified, information is required on areas that are inaccessible to other collection methods. It is anticipated that such information will reveal the existence of important installations previously unknown.

[redacted]

4. The National Priority Reconnaissance Requirements List represents a current statement of photographic requirements. Based on past experience, it can be anticipated that the general validity of this list will carry into the 1960-1965 time period. The individual reconnassance objectives within the various priorities could change based on new intelligence. Under current procedures within the intelligence community, a National Reconnaissance List will be maintained on a current basis. This list will be applied by the Ad Hoc Satellite Intelligence Requirements Committee to form the basis for the initial operational guidance for the SENTRY program.

5. During development and operational employment, the photography with a ground resolution of objectives approximately 100 feet on a side will be used by AFCIN, USAF Aeronautical Chart and Information Center, Army Map Service, Army Photo Interpretation Center, Navy Photo Interpretation Center, Navy Hydrographic Office, Strategic Air Command and Central Intelligence Agency for production of air navigation charts, topographic maps, geodetic data, target graphics, special purpose maps, and PI reports. This quality of photography will provide an initial complete base of photo coverage. After the first base is completed, the frequency of subsequent coverage will be governed by the schedule for revision of maps and charts at a scale of approximately 1/1,000,000 or not more than annually.

6. The Photography with a ground resolution of objects approximately 10 to 20 feet on a side will be used by Strategic Air Command, Aeronautical Chart and Information Center, Army Map Service, Navy Photo Interpretation Center, AFCIN and Central Intelligence Agency for the [redacted]

[redacted]

8. The probability of acquiring intelligence from photography is dependent on many factors, once of which is resolution. An evaluation of the probable intelligence to be derived from photography with various ground resolutions is sub-divided for discussion into increments of 100, 20, 10, 5 and 1 feet on a side. This evaluation is considered valid provided the targets are not concealed by deception or camouflage.

a. Photography with a ground resolution of objects 100 feet on a side should provide information for identification and location of cities, forests, large bodies of water, industrial complexes, major military complexes, air bases and large Naval and port facilities. Indications of industrial growth should be detected. Large ships (300 feet in length or more) should be detected at anchor or at sea and naval formations at sea identified. The extent of complexes, installations and sea formations should be approximately measured and some geodetic and topographic information should be available. It should be noted that geodetic data derived from this photography will be limited to extension of existing control networks.

b. Photography with a ground resolution of objects 20 feet on a side should provide all the information available from that with a ground resolution of 100 feet on a side, plus intelligence information concerning components of installations or complexes. Some air base runways, submarine bases, drydocks, piers and supporting facilities, major or isolated Moscow-type surface-to-air missile sites, atomic energy installations, ballistic missile sites, and industrial installations should be detected, located, identified by type and approximately measured. Large vessels including surfaced submarines, large aircraft and missile launch pads, should be counted. Military support facilities should be identified by type. The identification and disposition of major Soviet naval forces should be determined.

c. Photography with a ground resolution of objects 10 feet on a side should provide a capability to identify large aircraft and known missile carrying submarine and ship types, determine base utilization, locate special weapons facilities and analyze base support facilities. A general functional analysis of industrial, military and transportation facilities should be completed. Above ground fixed ICBM facilities such as launch pads, stands and some support equipment should be accurately measured. The capacity of military storage facilities, the general level of military activity should be determined. Naval ships and units should be identified by type.

d. Photography with a ground resolution of objects 5 feet on a side should provide detailed intelligence information concerning most military and industrial installations. All aircraft, except model improvements, some large missiles, early warning sites, AAA sites, atomic energy materials production, except weapons, structural shipboard configurations for missile handling, and special weapons storage, loading and handling should be identified, measured and analyzed. A level of military activity and type of training should be discernable.

3. Photography with a ground resolution of objects 1 foot on a side should provide detailed technical intelligence concerning air, naval or ground force equipment and industrial production processes.

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9. S. ne of the items for which photography of various ground resolutions might be used by the producing agencies are listed below. This photography would be used as source material along with source material collected from other resources. Usable ground resolutions for photography are shown by the figures 1, 2 and 3 for 100 feet, 20 feet and less than 20 feet, respectively. It will be ordered or disseminated from the intelligence data processing center by area or by subject as required for specific production in progress or programmed at each of the production facilities:

USAF:

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ARPA Order No. 38-59

November 5, 1958 Date

TO: Commander
Air Research and Development Command
Andrews Air Force Base
Washington 25, D. C.

1. Pursuant to the provisions of DoD Directive 5105.15, dated February 7, 1958, you are requested to proceed at once on behalf of the Advanced Research Projects Agency with the project specified below. Additional details and directives may be issued by ARPA from time to time and will become a part of this Order when so specified.

2. Study and development begun as Subsystem G of Weapon System 117L are to be continued, in accordance with this outline, as an independent project, to result in an orbitally flight tested Missile Defense Alarm Satellite (MIDAS) (U). Tasks to be carried out are:

a. Prepare for approval by ARPA a definitive statement of work remaining to be done and costs to be incurred on development, ground testing, and limited orbital flight testing of a Missile Defense Alarm Satellite, including necessary communication capability, and including studies aimed at defining a development program for a more advanced capability for missile defense alarm. The project definitively stated should be completed by April 30, 1960, and the work statement should indicate intended dates of reaching important milestones, against which progress of the projects can be monitored, and estimates for work to be performed (1) by ARDC, (2) by contract, and (3) at other Government facilities. The statement of the program to be prepared should be submitted to ARPA by December 15, 1958.

b. Continue fabrication of two completely functioning infrared-sensing satellite payloads. Plan completion in fully functioning form of an additional payload, initially only a thermal simulacrum.

c. Initiate study and development of satellite/ground communication equipment specifically needed for initial flight tests.

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d. Initiate design effort necessary properly to integrate payload and THOR-boosted SENTRY vehicle on an experimental basis, and to insure availability of auxiliary power adequate to permit significant data accumulation during test flights.

e. Plan early orbital flight experiments, to use the basic satellite vehicle of the SENTRY program, boosted by THOR missiles. These experiments should evaluate satellite stabilization and communications, as well as infrared payload and signals.

f. Initiate preliminary design study of infrared trackers and precise direction readout devices, leading toward an integrated missile-defense alarm payload of more advanced capabilities.

g. Plan further orbital experiments, to use vehicles and payloads more advanced than those of the initial flight tests.

h. Examine the possibility of designing simple experiments and building simple payloads to make use of possible excess load capacity on missile or satellite flights of other programs, for obtaining additional data of value to the MIDAS project.

i. Continue, for the present, experimental program to secure physical data on infrared phenomena, as needed for effective engineering development of the alarm satellite. Process results of these experiments, and of other measurement programs, to contribute most effectively to the MIDAS project.

3. This Order makes available $750,000 under appropriation and account symbol "97X0113.002 Salaries and Expenses, Advanced Research Projects Agency, Office of the Secretary of Defense" for obligation by the Air Research and Development Command on behalf of the Advanced Research Projects Agency only for purposes necessary to accomplish the work specified herein. These funds are for the period November 1, 1958, to January 31, 1959, and immediately available for direct obligation and for use in reimbursing the Air Research and Development Command for costs incurred under this Order. The funds made available are not for the construction of facilities.

4. The costs chargeable to this project (formerly Subsystem G) since July 1, 1958, and charged to ARPA Order No. 9, shall be identified and transferred to this Order. Funds shall be adjusted by ARPA as appropriate.

5. The Director, Advanced Research Projects Agency, will provide policy and technical guidance either directly or through designated representatives. The Air Research and Development Command will be responsible for arranging for the detailed technical directions necessary to accomplish the specified objectives and to comply with ARPA policy and technical guidance. This general relationship may be specified in greater detail by amendment to this Order if such action is necessary

6. The Director, Advanced Research Projects Agency, will be kept informed of the status of work assigned under this Order by a monthly progress report and a semi-annual technical report to be prepared and submitted in accordance with procedures outlined in Attachment No. 1. These reports represent ARPA's total foreseeable requirement for recurring reports based on this Order.

7. The utilization of equipment and materials procured in connection with this project for other projects is subject to the direction of ARPA. Notwithstanding, final disposition of such equipment and materials shall be made in accordance with standard procedures. Any technical and scientific information relating to work under this Order which may be published from time to time shall give appropriate credit to the ARPA project. No scientific and technical progress and status reports on ARPA s projects or final completion reports prepared specifically at ARPA's request shall be made available to other agencies or individuals without approval of ARPA.

8. ARDC shall be responsible for preserving the security of this project in accordance with the security classification assigned and the security regulations and procedures of the Department of the Air Force.

9. Notwithstanding any other provisions of this Order, ARDC shall not be bound to take any action in connection with the performance of this work that would cause the amount for which the Government will be obligated hereunder to exceed the funds made available, and the obligations to ARDC to proceed with the performance of this work shall be limited accordingly. ARDC shall be responsible for assuring that all commitments, obligations and expenditures of the funds made available are made in accordance with the statutes and regulations governing each matter, provided that whenever such regulations require approval of higher authority such approvals will be obtained from or through the Director, ARPA, or his designated representative.

/s/ Roy W. Johnson
/t/ Roy W. Johnson
Director

Attachment:
No. 1

cc: Secretary of the Air Force

ARPA
WASH 25, D.C.

ARPA Order 9-58
Amendment No. 5
[redacted] 1958

TO: CMDR, ARDC
[redacted]
Washington

ARPA Order 9-58, dtd June 30, 1958 is amended to redirect the responsibility for its execution from the Cmdr, AFBMD to the CMDR, ARDC.

~~/s/ L. P. Gise~~
for Roy W. Johnson
DIR.

cc: SecAF
CMDR, BMD

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ADVANCED RESEARCH PROJECTS AGENCY
Washington 25, D.C.

ARPA Order No. 9-58

June 30, 1958 Date

TO: Commanding General
Ballistic Missiles Division, ARDC
Los Angeles, California

1. Pursuant to the provisions of DoD Directive 5105.15, dated February 7, 1958, the Secretary of Defense has approved the assumption of responsibility by ARPA for the Advanced Reconnaissance Satellite (WS 117-L). You are hereby requested to continue with this program on behalf of the Advanced Research Projects Agency. Additional details and directives will be issued by ARPA from time to time and will become a part of this Order when so specified.

2. You will submit, as soon as possible, for review and approval by the Advanced Research Projects Agency a detailed development and related financial plan covering the program. These data shall include a time-phased schedule of work and estimates for work to be performed (a) at BMD, (b) by contract, and (c) at other government facilities.

3. This Order makes available $22,700,000 under appropriation and account symbol "97X0113.002 Salaries and Expenses, Advanced Research Projects, Department of Defense", for obligation by the Ballistic Missiles Division on behalf of the Advanced Research Projects Agency, only for purposes necessary to accomplish the work specified herein. These funds are not available for public works. Such public works as are necessary to the program shall be separately requested as needed by the Ballistic Missiles Division and approved by the Advanced Research Projects Agency. Separate funds will be authorized for approved public works. Upon approval of detailed development and financial plans, as required herein or in accordance with amendments to this Order, these funds will be increased as appropriate.

WD-58-04641 Series A
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4. The Director, Advanced Research Projects Agency, will provide policy and technical guidance, either directly or through designated resident representatives. The Ballistic Missiles Division will be responsible for arranging for the detailed technical direction necessary to accomplish the specified objectives and to comply with ARPA policy and technical guidance. This general relationship may be specified in greater detail by amendment to this Order if such action is necessary.

5. The Director, Advanced Research Projects Agency, and the Office of the Secretary of Defense will be kept informed by such management, technical and accounting reports as may be prescribed pursuant to this Order.

6. The use of equipment and materials procured in connection with these projects is subject to direction of ARPA and all reports, manuals, charts, data and information as may be collected or prepared in connection with the projects shall be made available to ARPA prior to release to other agencies or individuals under procedures to be approved.

7. The Ballistic Missiles Division shall be responsible for preserving the security of these projects in accordance with the security classifications assigned and the security regulations and procedures of the Department of the Air Force.

8. Notwithstanding any other provisions of this Order, BMD shall not be bound to take any action in connection with the performance of this work that would cause the amount for which the Government shall be obligated hereunder to exceed the funds made available, and the obligation of the BMD to proceed with the performance of this work shall be limited accordingly. BMD shall be responsible for assuring that all commitments, obligations and expenditures of the funds made available are made in accordance with the statutes and regulations governing such matters provided that whenever such regu lations require approval of higher authority such approvals will be obtained from or through the Director, Advanced Research Projects Agency, or his designated representative.

/s/ Roy W. Johnson
/t/ Roy W. Johnson
Director

cc: Secretary of the Air Force

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Cy 1 of 2

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HEADQUARTERS
AIR RESEARCH AND DEVELOPMENT COMMAND
Post Office Box 1395
Baltimore 3, Maryland

SDD No. 117L
17 August 1956

ARDC SYSTEM DEVELOPMENT DIRECTIVE
ADVANCED RECONNAISSANCE SYSTEM

1. DIRECTED ACTION

[redacted]

ILLEGIBLE

3. CHANGES

No specific changes to the WS 117L Development Plan, dated 2 April 1956, are directed. However, it is desirable that the Advanced Reconnaissance System be capable ultimately of meeting all operational and technical intelligence requirements for visual reconnaissance; thus necessary developments to improve the proposed visual sensor system to permit maximum ground resolution should be incorporated in the Development Plan, and such developments initiated as soon as possible in parallel with the WS 117L development program. ~~(SECRET)~~

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DECLASSIFIED. DOD DIR 5200.10

4. PERTINENT INFORMATION

a. Target Date - As indicated in Top Secret Supplement to WS 117L Development Plan, dated 2 April 1956. ~~(SECRET)~~

b. Funding Information - This system is being funded under line item 621-117L. (UNCL)

c. References -

(1) USAF General Operational Requirement No. 80 (SA-2c), 16 March 1955.

(2) ARDC System Requirement No. 5, [illegible] October 1955.

(3) USAF Development Directive No. [illegible], 3 August 1956.

(UNCL)

d. Other -

(1) Security - Maintenance of special security restrictions on information relating to development progress, system status, and planned operational capabilities is directed. A Master Security Classification Guide for WS 117L will be prepared, and a roster maintained of individuals whose position, as known to your organization, requires overall knowledge of the sensitive aspects of the WS 117L development program. An up-to-date copy of this roster will be submitted for retention at this Headquarters, Attn: RDZGM.

(2) Initial Funding - Severe limitations on FY 1957 funds available to this Command permit allocation of only $3,000,000 to initiate development of WS 117L. As soon as possible, ARDC Form 111, "Research and Development Management Report," should be submitted to Headquarters ARDC, Attn: RDZXP, outlining significant changes to the WS 117L Development Plan which will result from this inadequate initial funding. (SECRET)

BY ORDER OF THE COMMANDER:

UNITED STATES AIR FORCE
Headquarters Air Research & Development
OFFICIAL
AUTH

JOHN A. CONNOR
Chief, Fiscal & Documentation Branch
Executive Office
Deputy Comdr/
Weapon Systems

DON R. OSTRANDER
Brigadier General, USAF
Ass't for Guided Missiles Systems
Deputy Commander/Weapon Systems

This document is classified ~~SECRET~~ because it contains information on technological developments planned for the defense of the nation, the unauthorized disclosure of which would result in serious damage to the nation.

HEADQUARTERS
AIR RESEARCH AND DEVELOPMENT COMMAND
Post Office Box 1395
Baltimore 3, Maryland

Amend. No. 1 to
SDD No. 117L
28 August 1956

AMENDMENT TO ARDC SYSTEM DEVELOPMENT DIRECTIVE ADVANCED RECONNAISSANCE SYSTEM

1. AMENDMENT

ARDC System Development Directive No. 117L, dated 17 August 1956, is amended as follows:

a. Add to paragraph 4, as follows:

"e. Priority-Precedence -

The Advanced Reconnaissance System is currently assigned a development priority of 1-4, the USAF Precedence List rating of 1-6." (UNCLASSIFIED)

BY ORDER OF THE COMMANDER:

UNITED STATES AIR F[illegible]
Headquarters Air Research & D[illegible]
OFFICIAL

JOHN A. CONNOR
Chief, Fiscal & Documentation Branch
Executive Office
Deputy Commander/Weapon Systems

DON R. OSTRANDER
Brigadier General, USAF
Ass't for Guided Missiles Systems
Deputy Commander/Weapon Systems

Mgt 1-2

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HEADQUARTERS
AIR RESEARCH AND DEVELOPMENT COMMAND
Post Office Box 1395
Baltimore 3, Maryland

SR No. 5
17 October 1955

ARDC SYSTEM REQUIREMENT

1. DIRECTED ACTION

Submission, upon request, to Headquarters ARDC (Western Development Division) of information necessary for the preparation of a System Development Plan by the following participating centers is directed:

a. Wright Air Development Center.

b. Air Force Cambridge Research Center.

c. Holloman Air Development Center.

d. Rome Air Development Center.

e. Arnold Engineering Development Center.

f. Air Force Missile Test Center.

g. Air Force Personnel and Training Research Center.

(UNCLASSIFIED)

2. GENERAL INFORMATION

a. Title: (UNCLASSIFIED) Advanced Reconnaissance System.

b. System No: 117L

c. Responsible Agency: Headquarters ARDC (Western Development Division) is responsible for preparation of a System Development Plan based on the requirements contained herein in accordance with ARDCM 80-4, dated 1 July 1955.

d. Target Dates:

(1) Submission of System Development Plan to Headquarters USAF: 1 April 1956.

This SR supersedes SR No. 5, dated 29 November 1954, title, "Advanced Reconnaissance System."

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(2) Operational time period of this system: Prior to 1965 through 1970 (See par 5a).

e. Participation, Coordination, or Interest:

(1) Air Materiel Command - [illegible].

(2) Air Proving Ground Command - (P).

(3) Air Training Command - (P).

(4) Strategic Air Command - (C).

(5) Air Defense Command - (C).

(6) CNO, USN - (I).

(7) C/S, USA - (I). (8) CIA (I)

f. Funding Information: Funds for this program are carried for FY 1956 under BPSN 2-1115.

g. References

(1) GOR No: 80 (SA-2c), dated 16 March 1955.

(2) DD Form 613, title, "Advanced Reconnaissance System", Project No. 1115, dated 19 April 1955, RCS: DD-R&D/A/119.

~~(SECRET)~~

3. REQUIREMENT

a. General Philosophy

In order to permit selection of the most effective approach to an Advanced Reconnaissance System concept which utilises an earth satellite as a system platform, it is essential that the existing and projected state-of-the-art in this field be adequately surveyed, and a determination made through system design studies by selected contractors, of the technical and economical magnitude of full system development effort. From these studies there will be prepared a Development Plan which will be used as a basis for choice of the Advanced Reconnaissance System to be developed for the Air Force inventory. It has been generally accepted that, with the advent of the very high yield super weapon, strategic target intelligence requirements for efficient use of such a weapon have become far less detailed than heretofore; but at the same time, the requirement for routine surveillance of an enemy's territory becomes all the more necessary to

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anticipate and circumvent his effective use of the same caliber weapon. In concept at least, the technical approach to this type of Advanced Reconnaissance System leads one to the artificial earth satellite which, with its inherent capability for routine, long duration flight and its apparent capabilities for the collection of reasonably detailed information from the surface of the earth, seems to make a satellite system attractive for strategic and national reconnaissance. ~~(SECRET)~~

b. Objectives of the Advanced Reconnaissance System

As a matter of general guidance, the following may be considered the intelligence objectives for the Advanced Reconnaissance System:

(1) Continuous reconnaissance (visual, electronic, or other) coverage of the USSR and satellite nations, for surveillance purposes. Timeliness of receipt of the intelligence information is essential, with daily reconnaissance coverage at high resolution the ideal. In consideration of the requirement for earliest availability of the Advanced Reconnaissance System, the engineering progression and Air Force acceptance should be from the lesser to the greater resolution.

(2) The resolvable surface dimension detail should be of the order of 100 feet or smaller. A capability of resolving detail to the degree that objects approximately 20 ft on the side can be positively identified is the optimum in order to positively identify enemy weapon launching sites and associated activity. If this objective can be met, the many other intelligence requirements of larger surface dimension would automatically be satisfied.

(3) The volume of intelligence delivered by this Advanced Reconnaissance System will be staggering. Therefore, the system, in order to be considered complete, must include a suitable associated data handling, recording, reduction, and filing system. The earliest acceptable system must have provisions for automatic data indexing, filing and storage. Final objective will be for completely automatic data processing, interpretation, presentation, and dissemination. All data handling systems conceived for the Advanced Reconnaissance System will be compatible with data handling equipment in contemporary use within the intelligence community.

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(4) The accuracy with which points on the earth's surface can be located by the Advanced Reconnaissance System should be studied. While grosser accuracies can be accepted as interim solutions, the finer accuracies should be considered as the optimum and the goal for ultimate complete development.

(5) Thorough investigation of all possible means of improving the intelligence collection capability of the Advanced Reconnaissance System; such as the application of stereo techniques to the analysis and interpretation of television images.

~~(SECRET)~~

c. Mission

(1) The primary operational mission of the Advanced Reconnaissance System will be to provide pioneer and surveillance reconnaissance coverage of the territories controlled by the USSR and its allies. The system must be capable of obtaining:

(a) Routine target, mapping, pioneer terrain, weather, and photo intelligence data.

(b) Bomb damage assessment of high yield weapon strikes.

(2) An alternate and co-equal mission for the Advanced Reconnaissance System will be to provide and maintain continuous and comprehensive surveillance of the electronic activities of the USSR as a means of securing basic Soviet intentions, intelligence, and capabilities intelligence. The electronic reconnaissance (ferret) system should be capable of:

(a) Sensing, coding, recording and retransmitting all significant electronic emissions on both a qualitative and quantitative basis.

(b) The location of areas of high electronic densities compatible with the resolution capabilities obtainable.

(3) Each mission carries a firm requirement for a suitable data handling and processing capability

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both in the vehicle and on the ground.

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d. Physical Characteristics

The Advanced Reconnaissance System can be described as follows:

(1) A launching base which will consist of all facilities and equipment necessary for the proper launching of the satellite vehicle

(2) A satellite vehicle which will consist of the following sub-systems:

(a) Propulsion stage or stages necessary to boost the reconnaissance payload to its orbital altitude and once at this altitude to impart the velocity required to establish the satellite on its orbit.

(b) Guidance and control equipment to (a) guide the vehicle from the launching base to its orbit and (b) establish and maintain the reconnaissance payload in the correct attitude after it has been placed on orbit.

(c) Reconnaissance equipment that provides useable pictorial reconnaissance information for transmission to a ground receiving station. The alternate mission will require sensing equipment that is capable of detecting electromagnetic radiations instead of physiographic features.

(d) Information storage equipment with a capability of routinely storing the information gathered by the satellite vehicle until it can be transmitted to a ground receiving station.

(e) Transmitter equipment for transmission of the collected reconnaissance information, transmission and reception of any other information that is required to properly operate the satellite and its equipment.

(f) Miscellaneous equipment required for the proper functioning of the satellite; e.g., a transponder beacon to aid in the tracking of the

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satellite by a ground receiving station might conceivably be used.

(g) An auxiliary power supply to provide sufficient power for all of the satellite's needs.

(h) Provision for self-destruction of the satellite vehicle upon termination of its operational usefulness.

(3) The ground receiving station will consist of the following sub-systems:

(a) Receiving equipment to (a) receive the transmitted reconnaissance information, (b) enable vehicle tracking, and (c) any other information transmitted from the satellite.

(b) Transmitter equipment to transmit any required information to the satellite.

(c) Information storage equipment that will retain the reconnaissance information transmitted from the satellite until it is fully used.

(d) Display equipment that will display the reconnaissance information as it is received and which can also be used for viewing stored information.

(e) Other equipment that is required for the handling, interpretation and dissemination of the reconnaissance data that is received.

(~~SECRET~~)

4. GUIDANCE

a. Three parallel system design studies on the "Advanced Reconnaissance System" are currently being conducted under Task No. 21010, Project No. 1115. The purpose of these studies is to determine whether a useful military intelligence system, utilizing an artificial earth satellite as a carrier, can be foreseen with sufficient definitude to indicate full development at this time. Maximum utilization of these design studies in preparing the System Development Plan is directed.

b. In the artificial satellite we see a platform which at the present time appears to be limited in its military usefulness to that of making observations or relaying communications. This is a vehicle system singularly applicable to use as a reconnaissance system.

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The approach to the design of the overall system must be that of assuring a maximum military utility and reliability (since early models of the Advanced Reconnaissance System will undoubtedly be unmanned) of the reconnaissance sub-system; these factors will determine in turn the design objectives of the vehicle with its propulsion and guidance sub-systems.

c. One of the basic advantages of a satellite is its more-or-less unlimited duration of flight. If we were to try to take full advantage of this flight duration capability, it would be necessary to achieve flight equipment reliability far in excess of that which is possible today. There is a point at which a balance can be struck between efforts aimed at improving the reliability of flight components of the satellite, and the economy to be realized from the extended flight duration characteristics of a satellite. The system design studies directed herein should result in a suggested optimum system flight time, for which in-flight components should be designed.

d. In design of the Advanced Reconnaissance System, full advantage must be taken of those components, in existence or under development for other systems, which have application to a satellite-type vehicle system. Activity resulting from this directive must be fully coordinated, within ARDC, with related system developments to insure that no unwarranted duplication of study or design effort exists. Headquarters USAF will undertake necessary inter-service coordination.

e. The proposed test program for the Advanced Reconnaissance System should be oriented so as to maximize the usefulness of the test vehicles to the scientific community in general, as well as to satisfy environmental and engineering requirements of the Advanced Reconnaissance System. The System Development Plan should contain provisions for the fabrication and launching of "research laboratory models" of the satellite test vehicle, capable of obtaining and transmitting to earth valuable scientific data on the space environment and astronomical bodies. Such vehicles should be planned for launching early in the system test program, with the first "research laboratory model" launching prior to 1 January 1959, if possible.

f. In addition to the three system design studies referred to in 4a above, Project No. 1115 encompasses state-of-the-art study and experimental hardware development in the critical component areas of the Advanced Reconnaissance System. The current technical program involves thirteen separate tasks, carried out principally by contract. This program was established to provide state of art inputs to the system design studies; fullest exploitation of the Project 1115 technical program should be insured in this respect.

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5. OTHER INFORMATION

a. SECURITY

Maintenance of proper security of this program is of paramount importance. A basic guide to security will be the following: all information which contains or implies a date of operational availability for the Advanced Reconnaissance System; as well as information pertaining to its progress as a Weapons System will be classified TOP SECRET. Other aspects of the Advanced Reconnaissance System program, including its exploitation of the satellite, will be SECRET. ~~(SECRET)~~

b. USE OF SCIENTIFIC CONSULTANTS

The broad group of the engineering, physical, and geophysical sciences, which is encompassed by a development such as that contemplated in the Advanced Reconnaissance System, requires that ARDC make maximum use of the scientific and technical competence within the nation. This competence should be recognized and utilized when required in a consultant and advisory capacity by the Weapons Systems Project Office responsible for the Advanced Reconnaissance System. Wherever possible, civilian scientists who can contribute to the success of this project should be engaged in the capacity of consultant to ARDC, and the results of their efforts made available to all contractors on an equal basis. ~~(CONFIDENTIAL)~~

c. PRIORITY

Preparation of the System Development Plan directed herein will be carried out under Priority 1A, Precedence II-3. (UNCLASSIFIED)

UNITED STATES AIR FORCE
HEADQUARTERS AIR RESEARCH & DEVELOPMENT COMMAND
OFFICIAL
AUTHENTICATION

JOHN A. CONNOR
Chief, Program Control Div
Directorate of Systems Plans

Don R. Ostrander
DON R. OSTRANDER
Brigadier General, USAF
Assistant for Guided Missiles Systems
Deputy Commander/Weapon Systems

~~This SR is classified SECRET~~
IAW AFR 205-1, par 23c.

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[illegible]

ORGANIZATION AND FUNCTIONS OF THE OFFICE OF MISSILE AND SATELLITE SYSTEMS

1. Secretary of the Air Force Order No. 116.1, dated 31 August 1960, designated Brigadier Robert E. Greer as Director of the SAMOS Project, with additional duty as Vice Commander for Satellite Systems, AFBMD, ARDC, with duty station at AFBMD. It directs him to organize a SAMOS Project Office at AFBMD as a field extension of the Office of the Secretary of the Air Force. It specifies that the Director of the SAMOS Project is responsible to and will report directly to the Secretary of the Air Force.

2. Secretary of the Air Force Order No. 115.1, dated 31 August 1960, established the Office of Missile and Satellite Systems in the Office of the Secretary of the Air Force. It provides that the Director of the Office of Missile and Satellite Systems is primarily responsible for assisting the Secretary in discharging his responsibility for the direction, supervision and control of the SAMOS Project. He is responsible for maintaining liaison with the Office, Secretary of Defense and other interested governmental agencies on matters relative to his assigned responsibilities. He may be assigned additional duties as deemed appropriate by the Secretary of the Air Force, and he will provide the Secretariat for the Air Force Ballistic Missile Committee.

3. The general management structure for the SAMOS Project is outlined in Figure 1, attached. The Satellite Reconnaissance Technical Advisory Group will be appointed by the Secretary of the Air Force and will provide the means of obtaining the services of recognized experts from the scientific and applied engineering fields in the furtherance of the technical program. The Satellite Reconnaissance Advisory Council will be appointed by the Secretary of the Air Force to provide advice and counsel to him in the discharge of his overall responsibilities.

4. The internal organization and personnel assignment of the Office of Missile and Satellite Systems is outlined in Figure 2, attached. Following is a brief description of the principal duties of SAFMS officers:

ILLEGIBLE

[illegible] Systems in the Office of the Secretary [illegible] [illegible] Force.

2. The Director of the Office of Missile and Satellite Systems is primarily responsible for assisting the Secretary in discharging his responsibility for the direction, supervision and control of the SAMOS Project. He is responsible for maintaining [illegible]

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[illegible] bilities. He may be assigned [illegible] deemed appropriate by the [illegible]

3. The Director will provide the [illegible] the Air Force Ballistic Missile Comm[illegible]

DUDLEY [illegible]

Secret[illegible] Force

DEPARTMENT OF THE AIR FORCE
SAMOS PROJECT OFFICE
Air Force Unit Post Office, Los Angeles 45, California

16 Feb 61

MEMORANDUM FOR RECORD

SUBJECT: Trip Report

1. On 13/14/15 Feb 61, I visited SAFUS for the purpose of presenting a summary on SAMOS II launch, a progress report on E-6 and to request a decision on the pending E-1/E-2 launches.

2. Decisions

a. 2103 will be pulled out of the line and put on the shelf.

b. 2120 will be launched on current schedule. 2121 launch date will be protected. Decision to launch 2121 will be made after results of 2120 are determined. The 3 additional E-1 payloads and E-2 payload will continue in a hold position for the present. No funds will be spent on these standby payloads.

c. The Under Secretary stated very specifically that E-6 (Hi resolution, stereo, gross coverage) has priority over E-5 (Hi resolution, stereo, specific target coverage.)

d. It was discussed and tentatively decided to use the Martin program as a vehicle to advance the general state of the art, rather than in specific support of a reconnaissance objective. The first objective is to develop maneuverable recovery; the second is to introduce a new high energy second stage; the third objective is to explore Titan II as a booster. Flights will be orbital; first flight early in 1963. AMR should be a good proving ground. Basic pad design should possibly be completed for PMR. Specifications for a new second stage should be prepared and planning initiated for sending out RFP's.

3. The Under Secretary expressed concern over the "rumors" that the flight date for 2120 had slipped to June and that premium overtime would be required to meet the delivery date on the E-6 Agena B. He directed me to explore the possibility of producing Agena B (E-6 config) at Bell to pick up in June 62 at the end of the current Lockheed buy. He also indicated that a sufficiently large work force should be put on E-6 Agena B to bring it in on time and if this resulted in undermanning on E-5 Agenas and thus required overtime on E-5, he would be prepared to discuss this as a separate matter.

ROBERT E. GREER
Brigadier General, USAF
Director of SAMOS Project

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SAFMS WASH DC
SAFSP LOSA CAL
BT

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9 Mar 61

R-206

SAFSP-E
SAFSP-L
SAFSP-D
LBX

~~/S E C R E T~~/SAFMS-SEN-61-29.
REF SAFUS-SAFSP DISCUSSIONS OF 7 AND 8 MARCH 61
FOLLOWING IS SUMMARY OF APPROVAL AND DECISION ACTIONS CLN
THIS MESSAGE IN FIVE PARTS.

SAFSP
SAFSP-X file

PART 1. PROGRAM I

[redacted]

AS [redacted]

[redacted]

PAYLOADS AS FOLLOWS CLN LAUNCHES SCHEDULED FOR 3/62, 6/62, [redacted]
AND TENTATIVE PLANNING DATED FOR FOLLOW-ONS AS CLN 4/63, 6/63,
9/63, 11/63, 1/64.
PART III. PROGRAM II.

[redacted]

/63 [redacted]

CONTRACTOR

[redacted]

1002

PART IV
NEW STAGE - THE NEW AGENA TYPE STAGE IS NOT
PRESENTLY PART OF THE SAMOS PROGRAM. ARDC HAS STARTED
FLOURINE ENGINE DEVELOPMENT IN APPLIED RESEARCH AREA. STAGE WILL BE
INITIATED BY COMPETITION PROBABLY AROUND MID FY 62 OR LATER.
IF DECISION IS MADE AT THAT TIME TO CONFIGURE THIS STAGE FOR
SAMOS, THEN SAFSP WILL BE GIVEN MANAGEMENT RESPONSIBILITY
PART V. [redacted]
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10: SAFSP-04
Maj Guy

JOINT MESSAGEFORM

SECURITY CLASSIFICATION: SECRET

SPACE BELOW RESERVED FOR COMMUNICATION CENTER

12/12/61

PRECEDENCE		TYPE MSG (Check)			ACCOUNTING SYMBOL	ORIG. OR REFERS TO	CLASSIFICATION OF REFERENCE
ACTION	ROUTINE	BOOK	MULTI	SINGLE	AF		
INFO							

FROM:
HQ SSD LOS ANGELESCALIFORNIA

TO:
LOCKHEED MISSILES AND SPACE COMPANY SUNNYVALE CALIF

~~SECRET~~ FROM SSZKK-12-12-15. FOR GEORGE TAYLOR, DEPT 23-42. SUBJECT IS [redacted] REORIENTATION. IN ORDER TO ASSURE ORDERLY TECHNICAL DEVELOPMENT WITHIN THE OVERALL FUNDS PROVIDED BY THE DEPT OF THE AIR FORCE AND AS A RESULT OF THE MEETING ON 11 DEC 1961 BETWEEN THIS OFFICE AND MESSRS. PRICE, TAYLOR, WESTBERT, YOUNGMAN, AND O'BRIEN OF LMSC, CONSIDERING THE RECOMMENDATIONS THERE FROM, IT IS DESIRED THAT THE FOLLOWING ACTIONS BE TAKEN IN REGARD TO PROGRAM 102. (1) ALL WORK TOWARD DEVELOPMENT OF A GROUP II ANALOG PAYLOAD BE STOPPED (THIS INCLUDES RCA VEHICLE RECORDERS ASSOCIATED WITH THIS PAYLOAD), (2) SIMPLIFICATION OF THE COMMAND SYSTEM FOR ANALOG FLIGHTS BE INITIATED TO ELIMINATE THE PREVIOUSLY REQUIRED FLEXIBLE ON-ORBIT PROGRAMMING (WITH S-BAND BEACON COMMAND SYSTEM AND FAIRCHILD ORBITAL TIMER NO COMMAND ENCRYPTION WOULD BE REQUIRED). (3) DIGITIZATION AND ENCRYPTION OF THE ANALOG DATA LINK BE RETAINED AS A FIRM REQUIREMENT. ACTION WILL BE TAKEN SHORTLY BY THIS

SPECIAL INSTRUCTIONS

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SSZKK-23

DATE	TIME
12	14 00
MONTH	YEAR
DEC	61

SYMBOL
SSZKK/A

TYPED NAME AND TITLE (Signature, if required)
MAJ COPLEY

PHONE EXT 4340 | PAGE NR. 1 | NR OF PAGES 2

SECURITY CLASSIFICATION

RELEASED BY

SIGNATURE
SIGNED

TYPED (or stamped) NAME AND TITLE
EDWARD B. PASLEY

JOINT MESSAGEFORM - CONTINUATION SHEET

SECRET

FROM

[illegible] LOS ANGELES CALIFORNIA (SSZDK)

HEADQUARTERS TO OBTAIN NSA PARTICIPATION IN THIS AREA. (4) PROPOSED DATE TABLE NINETEEN WILL BE USED AS A GUIDE TO THE DESIRED SCHEDULE UNTIL A FIRM SCHEDULE CAN BE AGREED UPON. (THIS MEANS THAT 2301 THRU 2314 WOULD BE AGENA B WITH THE BALANCE OF FLIGHTS AGENA D.) (5) IT IS AGAIN EMPHASIZED THAT EVERY EFFORT SHOULD BE MADE TO SIMPLIFY [redacted] VEHICLES AND GROUND EQUIPMENT MAKING MAXIMUM USE OF COMPONENTS AND EXPERIENCE FROM THE DISCOVERER PROGRAM. (6)ADDITIONAL DIRECTION IN REGARD TO PAYLOAD DEVELOPMENT AND SCHEDULING WILL BE FURNISHED SHORTLY, HOWEVER, DEVELOPMENT OF AT LEAST ONE FLIGHT EACH OF GROUP I AND GROUP III ANALOG IS DESIRED. (7) IT IS NOT INTENDED THAT THIS DIRECTION WILL IN ANY WAY DELAY THE EARLIEST POSSIBLE LAUNCH [redacted] IT IS ESSENTIAL THAT [redacted] BE LAUNCHED PRIOR TO 15 FEB 1962 AS PREVIOUSLY STATED AND THAT 1014 [redacted] BE LAUNCHED IN LATE SPRING IN ACCORDANCE WITH DATE TABLE 19. (8) THE TOTAL NUMBER OF FLIGHTS CANNOT BE FIRMLY FIXED AT THIS TIME BUT ANY FLIGHTS ELIMATED WOULD BE DROPPED FROM THE END OF THE PROGRAM AND WOULD NOT EFFECT SCHEDULE OF EARLIER FLIGHTS. (9) IT IS DESIRED THAT LMSC RECOMMENDATIONS FOR CHANGES TO THE WORK STATEMENT TO REFLECT THESE CHANGES BE SUBMITTED AS SOON AS POSSIBLE SO THAT DEFINITIZATION OF CONTRACT AF04(647)-800 MAY BE EXPEDITED. SIGNED BY EDWARD B. PAULEY, CONTRACTING OFFICER. "SCP-3".

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JOINT MESSAGE FORM

SECURITY CLASSIFICATION
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12/27/61

PRECEDENCE ACTION PRIORITY INFO ROUTINE	TYPE MSG (Check) BOOK ☐ MULTI ☐ SINGLE X	ACCOUNTING SYMBOL AF	ORIG. OR REFERS TO SSZDK-12-12-15 LMSC/B002248	CLASSIFICATION OF REFERENCE SECRET

FROM:
SPACE SYSTEMS DIV: LOS ANGELES CALIF

TO: LOCKHEED MISSILES & SPACE COMPANY
SUNNYVALE, CALIFORNIA

INFO: AF PLANT REPRESENTATIVE
LOCKHEED MISSILES & SPACE COMPANY
LOCKHEED ACFT CORP
SUNNYVALE, CALIFORNIA

USAF RESIDENT AUDITOR
LOCKHEED MISSILES & SPACE COMPANY
LOCKHEED ACFT CORP
SUNNYVALE, CALIFORNIA

~~SECRET~~ SSZDK-27-12-20.

ACTION FOR LMSC (MR. GEORGE TAYLOR - DEPT 67-30). INFO FOR USAF RESIDENT AUDITOR, LMSC. INFO FOR AFPR, LMSC (MR. SVENSON). REFERENCE SSZDK MSG 12-12-15, DATED 13 DEC 61, LMSC MSG B002248, DATED 16 DEC 61 AND SUBSEQUENT TELECONS BETWEEN SSZD AND LMSC DEPT 67-30. SUBJECT: CONTRACT AF04(647)-800, FUNDS CEILING FOR FY-1962. THIS MSG IN THREE PARTS. PART I - THE CONTRACTOR SHALL PERFORM THE NECESSARY WORK ON PROGRAM 102 DURING FY-1962 FOR A TOTAL COST NOT TO EXCEED [redacted] THIS FUND CEILING INCLUDES LMSC C & C COSTS FOR THIS EFFORT BUT DOES NOT INCLUDE THE DR. HARRIS

SPECIAL INSTRUCTIONS

INTERVALS: NOT AU[illegible] DECLASSIFIED. DOD DIR 5200.

CONTROL #
SSZDK-31

DATE 27	TIME
MONTH 12	YEAR 61

SYMBOL
SSZDK

TYPED NAME AND TITLE (Signature, if required)
EDWARD B. PAULEY - CONTRACTING OFFICER

PHONE OR 0 4223 PAGE NR. 1 NR. OF PAGES 2

SECURITY CLASSIFICATION
SECRET

SIGNATURE

TYPED (or stamped) NAME AND TITLE
EDWARD B. PAULEY
CONTRACTING OFFICER

SSZAK-31

DD FORM 1 MAY 55 173 REPLACES DD FORM 173, 1 OCT 49, WHICH WILL BE USED UNTIL EXHAUSTED

MESSAGEFORM - CONTINUATION SHEET

SECURITY CLASSIFICATION SECRET

FROM:
SPACE SYSTEMS DIV: LOS ANGELES CALIF

SPECIAL EFFORT OF [redacted] DOLLARS. THIS MESSAGE SUPERSEDES ALL PREVIOUS COST CEILING MESSAGES CONCERNING PROGRAM 102. TO ASSURE COMPLIANCE WITH THE SUBJECT COST CEILING, THE FOLLOWING ACTIONS, IN ADDITION TO THOSE OUTLINED IN SS[illegible]DK MESSAGE 12-12-15, SHOULD BE IMPLEMENTED: (1) FLIGHT CONFIGURATION AND SCHEDULES SHOULD BE AS FOLLOWS:

	PAYLOAD	FLT DATE
[redacted]	GROUP 0 DIGITAL	FEB 1962
[redacted]	GROUP 2 DIGITAL	JUNE 1962
[redacted]	GROUP 1 DIGITAL	FEB 1963
[redacted]	GROUP 1 DIGITAL	MAY 1963
[redacted]	GROUP 1 ANALOG	JULY 1963
[redacted]	GROUP 3 ANALOG	SEPT 1963
[redacted]	GROUP 3 ANALOG	NOV 1963

(2) ALL SUBCONTRACT EFFORT THAT CAN BE DELAYED SHOULD BE PLANNED FOR FY-1963 ACCOMPLISHMENT, PARTICULARLY THE ANALOG EFFORT AT R.C.A. AND A.I.L. (3) IN-HOUSE MANUFACTURING EFFORT SHOULD BE STRETCHED OUT OR UNINITIATED DURING FY-1962 TO THE MAXIMUM CONSISTENT WITH THE ABOVE SCHEDULE. PART II - REQUEST LMSC ADVISE THIS OFFICE BY RETURN TWX AS FOLLOWS: (1) LMSC CONCURRENCE IN THE SUBJECT FUNDING CEILING. (2) THE EARLIEST DATE OF SUBMISSION OF A REVISED WORK STATEMENT BY LMSC. (3) THE EARLIEST DATE OF SUBMISSION OF A REVISED COST PROPOSAL BY LMSC. PART III - SS[illegible]DK MILESTONES FOR THIS PROCUREMENT ARE AS FOLLOWS: (1) REVISED WORK STATEMENT AND PROPOSAL BY 15 JANUARY 1962. (2) NEGOTIATIONS 12 MARCH 1962. SIGNED EDWARD B. PAULEY - CONTRACTING OFFICER. CF-4

DOWNGRADED AT 12 YEAR INTERVALS; NOT AUTOMATICALLY DECLASSIFIED. DOD DIR 5200.10

CONTROL #
SS[illegible]DK-31

SYMBOL	PAGE NR	NR OF PAGES	SECURITY CLASSIFICATION	INITIALS
SS[illegible]DK	2	2	SECRET	

DD FORM 1 MAY 55 173.1

DPS, Ogden, Utah

NO: 116.1

DATE: August 31, 1960

SECRETARY OF THE AIR FORCE
ORDER

SUBJECT: The Director of the SAMOS Project

1. Effective this date, Brigadier General Robert E. Greer, Assistant Chief of Staff for Guided Missiles, is designated as Director of the SAMOS Project, with additional duty as Vice Commander for Satellite Systems, AFBMD, ARDC, with duty station at 2400 East El Segundo Boulevard, El Segundo, California.

2. The Director will organize an office to manage the SAMOS Project. Manpower to staff the office will be drawn from manpower available to him as Vice Commander for Satellite Systems. The SAMOS Project Office will be a field extension of the Office of the Secretary of the Air Force.

3. The Director is responsible to and will report directly to the Secretary of the Air Force.

4. Additional duties may be assigned to the Director as deemed appropriate by the Secretary of the Air Force.

Dudley C. Sharp

DUDLEY C. SHARP
Secretary of the Air Force

AFHQ FORM 0-862, 17 JUN 53

C O P Y

SECRETARY OF DEFENSE

16 June 1960

MEMORANDUM FOR SECRETARIES OF THE ARMY, NAVY AND THE AIR FORCE

SUBJECT: Coordination of Satellite and Space Vehicle Operations (U)

Reference is made to the Secretary of Defense's memorandum of September 18, 1959, subject as above.

The decisions set down in the referenced memorandum are reaffirmed. Additionally, it is desired to emphasize the establishment of a joint military organization for control over operational space systems does not appear necessary or desirable at this time.

With specific reference to the first full paragraph on page 3 of the September 18, 1959, memorandum, the appropriate Military Department will include in its detailed plans for a particular system not only the user relationships with unified and specified commands and other appropriate agencies, but also, where applicable, provision for the exercise of appropriate operational authority by the unified and specified commanders responsible for the functional areas concerned.

S/Gates

13 Sep 60

MEMORANDUM FOR THE CHIEF OF STAFF, USAF

As a result of recent review of the SAMOS Project at the highest national level, changes have been made in the character and scope of the technical program. It has been directed by the National Security Council and the Secretary of Defense that special management procedures be established in accordance with the national importance of this program.

Accordingly, I have established:

a. A Director of the SAMOS Project at AFBMD as a field extension of my office, responsible to and reporting directly to me, and

b. An Office of Missile and Satellite Systems (SAFMS) within my staff, to assist me in the discharge of my responsibilities.

The functional relationship between the above offices is outlined in the attachments hereto, along with a description of the organization and functions of the Office of Missile and Satellite Systems and the charters of an Advisory Council and a Technical Advisory Group on Satellite Reconnaissance.

Effective immediately, the satellite reconnaissance program will be managed within the above structure. There will be no review or approval channels between the Director of the SAMOS Project and the Secretary of the Air Force. However, in order to maintain general project knowledge within those command and staff offices where such knowledge is necessary for program support or coordination of related matters, need-to-know briefings will be given by the program management staff. These briefings will be given on a periodic basis, without request, and not as a part of Project management actions. All requests for briefings will be directed to the Secretary of the Air Force, and will be approved only on a strict need-to-know basis.

The national urgency requires the utmost support with immediate response and overriding priority from all elements of the Air Force as and whenever requested by the program

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management. The Director of the SAMOS Project is authorized direct contact with major commands to request such support. The Director, Office of Missile and Satellite Systems is authorized direct contact with the Air Staff, and other staffs and agencies, to request support as required.

Visits to the SAMOS Project Office will be for official business only. Requests for visits by other than normally accredited contractors and agencies of government whose business requires regular and frequent visits will be directed to the Secretary of the Air Force for approval.

Request that you inform the Air Staff and all major commands of the above direction immediately.

/s/ DUDLEY C. SHARP
Secretary of the Air Force

3 Incls:
1. Org & Functions of
   Off of Msl & Sal Sys (U)
2. Sat Recon Adv Council (U)
3. Sat Recon Tech Adv Gp (U)

SECRET

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ORGANIZATION AND FUNCTIONS OF THE OFFICE OF MISSILE AND SATELLITE SYSTEMS

1. Secretary of the Air Force Order No. 116.1, dated 31 August 1960, designated Brigadier Robert E. Greer as Director of the SAMOS Project, with additional duty as Vice Commander for Satellite Systems, AFBMD, ARDC, with duty station at AFBMD. It directs him to organize a SAMOS Project Office at AFBMD as a field extension of the Office of the Secretary of the Air Force. It specifies that the Director of the SAMOS Project is responsible to and will report directly to the Secretary of the Air Force.

2. Secretary of the Air Force Order No. 115.1, dated 31 August 1960, established the Office of Missile and Satellite Systems in the Office of the Secretary of the Air Force. It provides that the Director of the Office of Missile and Satellite Systems is primarily responsible for assisting the Secretary in discharging his responsibility for the direction, supervision and control of the SAMOS Project. He is responsible for maintaining liaison with the Office, Secretary of Defense and other interested governmental agencies on matters relative to his assigned responsibilities. He may be assigned additional duties as deemed appropriate by the Secretary of the Air Force, and he will provide the Secretariat for the Air Force Ballistic Missile Committee.

3. The general management structure for the SAMOS Project is outlined in Figure 1, attached. The Satellite Reconnaissance Technical Advisory Group will be appointed by the Secretary of the Air Force and will provide the means of obtaining the services of recognized experts from the scientific and applied engineering fields in the furtherance of the technical program. The Satellite Reconnaissance Advisory Council will be appointed by the Secretary of the Air Force to provide advice and counsel to him in the discharge of his overall responsibilities.

4. The internal organization and personnel assignment of the Office of Missile and Satellite Systems is outlined in Figure 2, attached. Following is a brief description of the principal duties of SAFMS officers:

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OFFICE OF THE DIRECTOR

Director	Responsible for conducting all actions of SAFMS in accordance with policy of and delegated authority from the Secretary of the Air Force.
Deputy Director	Principal assistant to the Director, acts with full authority of the Director on all affairs of SAFMS. Responsible for overall direction, guidance, supervision, and coordination of the activities of the office.
Executive Office	
Executive Asst Executive	Executive Officer and Chief of the Executive Office and responsible for the general administration of SAFMS, including mail, security, records, inspections, personnel, travel, and overall office management.

EXECUTIVE SECRETARIAT OF AF-BMC

Secretary Asst Secretary	Executive Secretariat of the Air Force Ballistic Missile Committee for Missile and Space Systems. Handles all matters related to Committee actions.

SATELLITE RECONNAISSANCE

Asst for Programs	Responsible for SAFMS duties concerning programming, funding, and schedules. Monitors, briefs and reports on all SAMOS launches. Maintains an active, working SAMOS control room for daily use. Responsible for actions incident to revising, processing, and maintaining the SAMOS development plan. Responsible for general briefings on the entire overall SAMOS Project, and for the preparation and maintenance of complete briefing material, aids and information on the overall project

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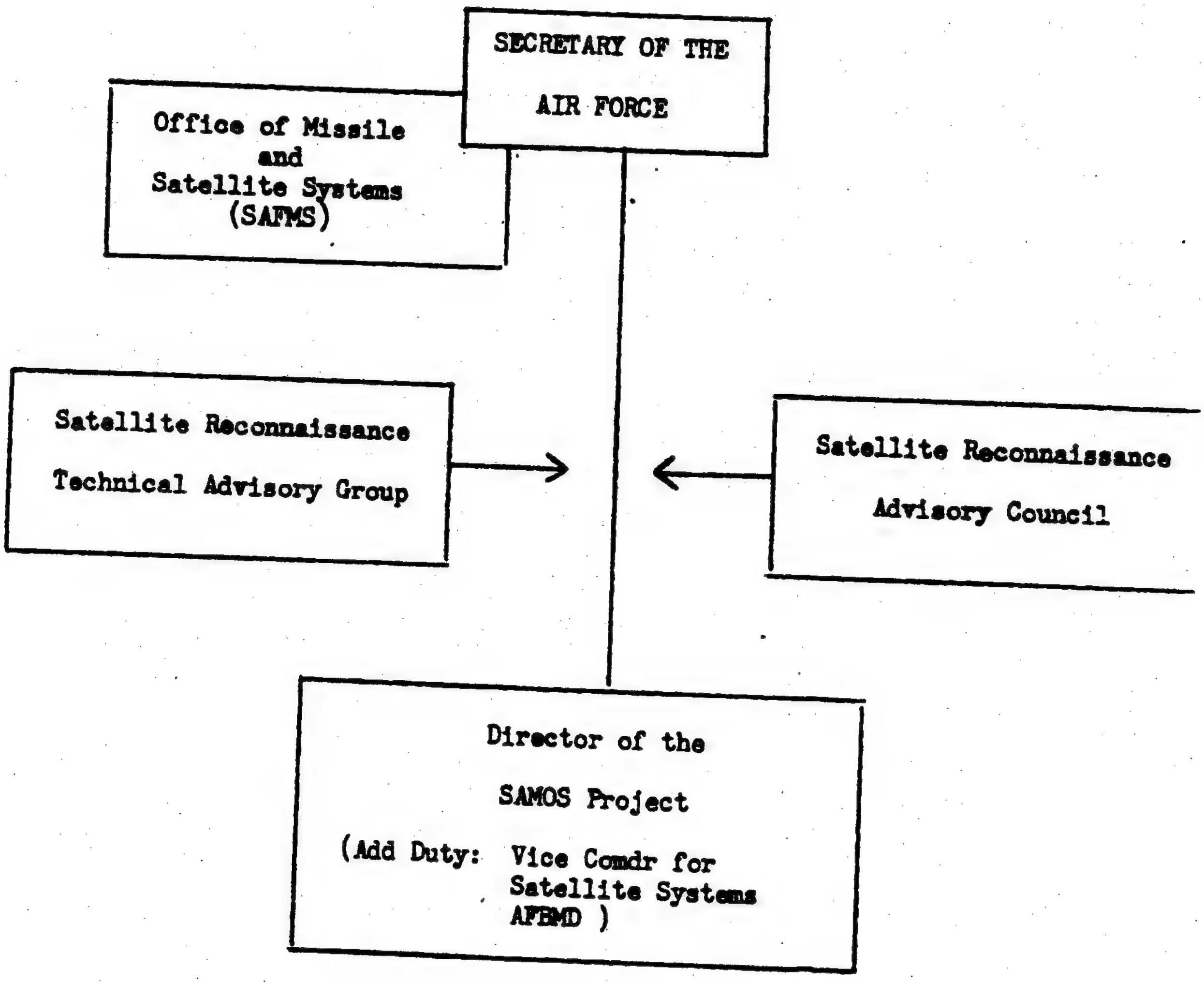
Asst for Electronics	Responsible for SAFMS duties concerning electronic payloads, ELINT, and related matters; weather aspects of the SAMOS Project; technical compatibility of electronic aspects of Subsystem I, Space-Ground Communications. Responsible for NSA liaison and coordination. Responsible for maintaining current knowledge of booster and vehicle capabilities. Alternate to the Assistant for Instrumentation.
Asst for Photography	Responsible for SAFMS duties concerning photographic equipment and payloads and related coordination with other services and agencies. Responsible for photographic compatibility aspects of Subsystem I. Alternate to Assistant for System Engineering.
Asst for Instrumentation	Responsible for SAFMS duties concerning Subsystem I, its overall development, schedules, locations, tests, and overall technical design, overall data processing and handling of all SAMOS outputs. Also responsible for SAMOS recovery program, SAMOS command and control aspects, including centers and stations. Also responsible for MIDAS and DISCOVERER coordination. Alternate to Assistant for Electronics.
Asst for System Engineering	Responsible for overall system engineering aspects including interchangeability of payloads, system performance capabilities, mission variations, system growth possibilities, and relative priorities within the Project. Responsible for necessary coordination with related and supporting R&D programs. Also responsible for special projects as assigned by the Director. Alternate to the Assistant for Photography.



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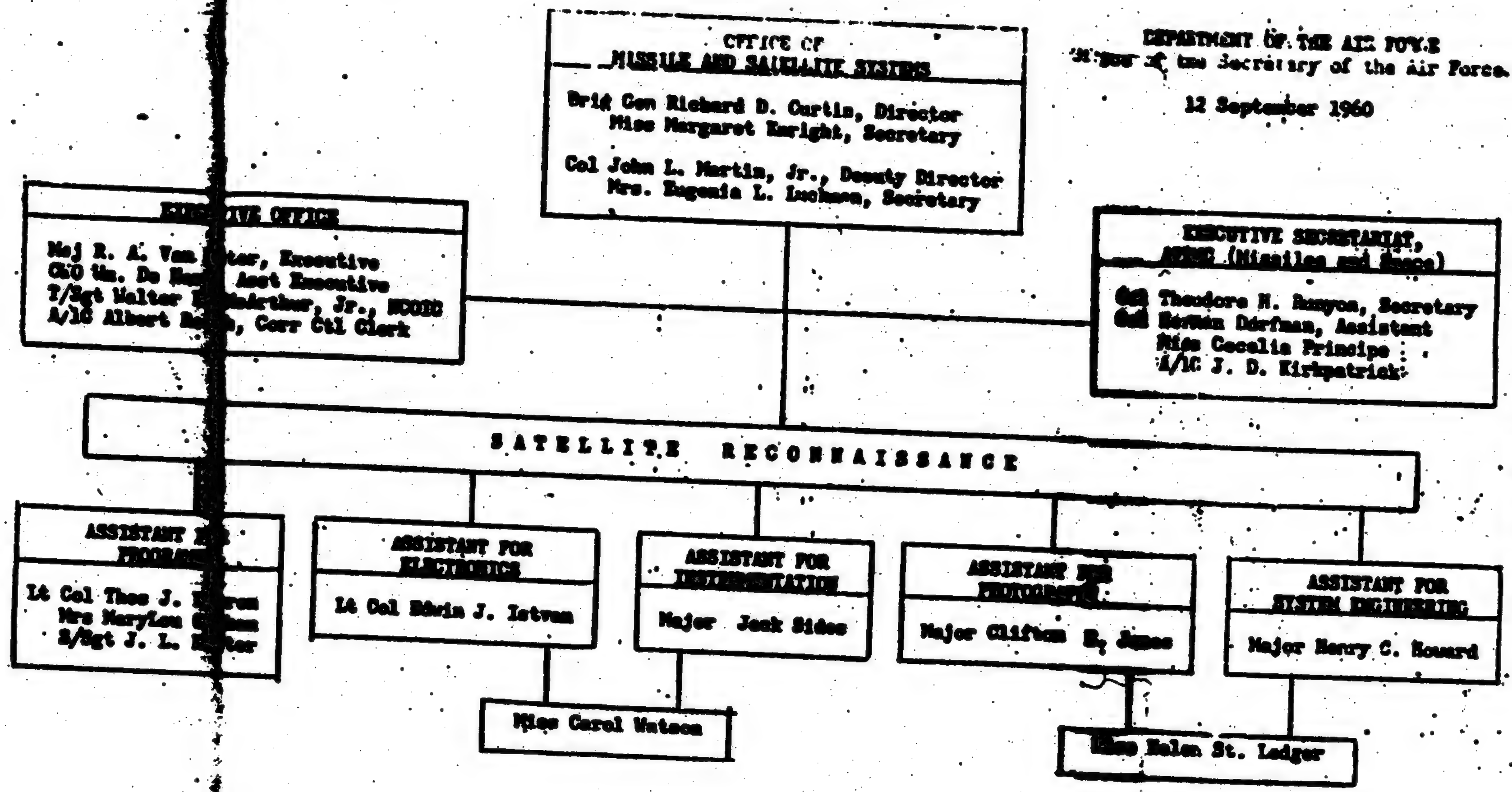
AFR 11-30

Figure 7

DEPARTMENT OF THE AIR FORCE
Office of the Secretary of the Air Force

12 September 1960



OFFICE OF MISSILE AND SATELLITE SYSTEMS

Brig Gen Richard D. Curtin, Director
Miss Margaret Enright, Secretary

Col John L. Martin, Jr., Deputy Director
Mrs. Eugenia L. Lochman, Secretary

EXECUTIVE OFFICE

Maj R. A. Van [illegible]ter, Executive
CWO Wm. De [illegible], Asst Executive
T/Sgt Walter [illegible]acArthur, Jr., NCOIC
A/1C Albert [illegible], Corr Ctl Clerk

EXECUTIVE SECRETARIAT, [illegible] (Missiles and Space)

Col Theodore H. Runyon, Secretary
Col Herman Dorfman, Assistant
Miss Cecelia Principe
A/1C J. D. Kirkpatrick

SATELLITE RECONNAISSANCE

ASSISTANT F[illegible] PROGRA[illegible]

Lt Col Thos J. [illegible]
Mrs MaryLou [illegible]
S/Sgt J. L. [illegible]ter

ASSISTANT FOR ELECTRONICS

Lt Col Edwin J. Istvan

ASSISTANT FOR INSTRUMENTATION

Major Jack Sides

Miss Carol Watson

ASSISTANT FOR PHOTOGRAPHIC

Major Clifton E. James

ASSISTANT FOR SYSTEM ENGINEERING

Major Henry C. Howard

Miss Helen St. Ledger

re 2

SATELLITE RECONNAISSANCE ADVISORY COUNCIL

1. Recent changes in the SAMOS management structure have resulted in the establishment of a Director of the SAMOS Project at AFBMD as a field extension of the Office of the Secretary of the Air Force, and an Office of Missile and Satellite Systems within the Secretary's staff to assist him in the discharge of his responsibilities. The SAMOS Project will be managed within this structure, with no intermediate review or approval channels between the SAMOS Project Director and the Secretary of the Air Force.

2. In order to assist the Secretary in the discharge of his responsibilities, there is a need for an advisory agency to provide assistance, advice and recommendations as required. This agency will be the Satellite Reconnaissance Advisory Council.

THE SATELLITE RECONNAISSANCE ADVISORY COUNCIL:

Under Secretary of the Air Force, Chairman
Assistant Secretary (Research and Development)
Assistant Secretary (Financial Management)
Assistant Secretary (Materiel)
Vice Chief of Staff
Deputy Chief of Staff, Development
Assistant Chief of Staff, Intelligence
Director, Office of Missile and Satellite Systems

3. The Office of Missile and Satellite Systems will provide the Secretariat for the Council.

4. No alternates will be designated. Attendance will be limited to the members of the Council and such other individuals as may be invited to attend by the Chairman.

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SATELLITE RECONNAISSANCE
TECHNICAL ADVISORY GROUP

1. The services of recognized experts from the scientific and applied engineering communities shall be solicited as appropriate in the furtherance of the SAMOS technical program. Such services shall be rendered through the functioning of the Satellite Reconnaissance Technical Advisory Group.

2. The Satellite Reconnaissance Technical Advisory Group shall be composed of:

a. A permanent Standing Committee of four, which shall include recognized experts in the fields of electronics, photography, and data handling. The membership of the Standing Committee will be appointed by the Secretary of the Air Force.

b. Assemblies of technical experts representing pertinent scientific and engineering fields convened as occasions arise necessitating competent technical evaluation and advice in the prosecution of the Satellite Reconnaissance Program. Participation of such individuals in assemblies of the Satellite Reconnaissance Technical Advisory Group shall be by invitation from the Secretary of the Air Force. The Standing Committee shall preside at assemblies of the Technical Advisory Group.

3. Each assembly of the Satellite Reconnaissance Technical Advisory Group shall be chartered to consider specifically designated matters. Individuals invited to participate in Technical Advisory Group assemblies may vary for each assembly according to the nature of the matters under consideration.

4. Reports and findings of the Satellite Reconnaissance Technical Advisory Group shall be prepared for and submitted to the Secretary of the Air Force by the Standing Committee.

5. The Secretary of the Air Force shall, upon request from other government agencies in matters of national interest involving resolution of technical differences, direct the permanent Standing Committee to convene a special assembly of competent persons as determined by the Standing Committee, to consider the matter under request and to recommend appropriate resolution.

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DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON 25, D.C.

REPLY TO ATTN OF: AFCSS

SUBJECT: Missile and Satellite Systems

14 October 1960

TO: DEPUTIES, DIRECTORS, AND CHIEFS OF COMPARABLE OFFICES (NO. 15)

1. The Secretary of the Air Force has established:

a. An Office of Missile and Satellite Systems (SAFMS) in the Office of the Secretary of the Air Force to assist him in discharging his responsibility for the direct supervision and control of the SAMOS Project. The Director will provide the Executive Secretariat for the Air Force Ballistic Missile Committee. The Director, SAFMS, is responsible for maintaining liaison with the Office of the Secretary of Defense and other interested government agencies on matters relative to his assigned responsibilities. He may be assigned additional duties as deemed appropriate by the Secretary of the Air Force. Brigadier General Richard D. Curtin has been designated as Director of this office.

b. A Directorate of the SAMOS Project (SAFSP) at AFBMD as a field extension of the Office of the Secretary of the Air Force responsible to and reporting directly to the Secretary for management of the SAMOS Project. Brigadier General Robert E. Greer has been designated as Director with additional duty as Vice Commander for Satellite Systems, AFBMD, ARDC, with duty station at 2400 East El Segundo Blvd., El Segundo, California.

c. A Satellite Reconnaissance Technical Advisory Group and a Satellite Reconnaissance Advisory Council.

2. Effective immediately, the satellite reconnaissance program will be managed within the above structure. Further:

a. There will be no review or approval channels between the Director of the SAMOS Project and the Secretary of the Air Force. However, in order to maintain general project knowledge within those command or staff offices where such knowledge is necessary for program support or coordination of related matters, need-to-know briefings will be given on a periodic basis. Briefings will be given by SAFMS without request and not as a part of project management actions. Requests for briefings will be directed to the Secretary of the Air Force and will be approved on a strict need-to-know basis.

NOTE: Same ltr addressed to Maj Comds, dtd 14 Oct 60.

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b. Visits to the SAMOS Project Office, El Segundo, California, will be for official business only. Requests for visits by other than specifically accredited contractors and agencies of the government whose business requires regular and frequent visits will be directed to the Secretary of the Air Force for approval.

c. The Director of the SAMOS Project is authorized direct contact with major commands to request support.

d. The Director, Office of Missile and Satellite Systems is authorized direct contact with the Air Staff and other staffs and agencies to request support as required.

3. The Executive Secretariat of the Air Force Ballistic Missile Committee will be the responsibility of the Director of Missile and Satellite Systems. Pending resolution and clarification of Air Staff participation in the direction of Ballistic Missile and Space Programs, the Secretariat will continue to provide the Air Force Ballistic Missile Committee with a direct channel to the Inglewood Complex, Air Materiel Command, and the Air Staff. This will include the necessary arrangements for meetings and follow-on implementing actions. The Air Staff will keep this office fully advised on missile and space matters so as to insure maximum effectiveness for the Secretary of the Air Force and the Air Force Ballistic Missile Committee. Until more detailed operating instructions are issued, the Air Staff will continue to assist the Office of Missile and Satellite Systems in every way possible.

4. The high national importance accorded the SAMOS Project requires complete support and immediate response from all elements of the Air Force. All individuals and organizations of the Air Force are urged to provide the necessary resources and assistance to these offices to assure the timely attainment of missile and satellite objectives.

ROBERT R. ROWLAND
Colonel, USAF
Secretary of the Air Staff

TOP SECRET

18 DEC 1962

Mr deCourt/me
Typed 6 Dec 62

MEMORANDUM FOR GENERAL CARROLL, DIRECTOR, DIA

It is vital that the intelligence derived from the satellite SIGINT program be provided expeditiously to all USIB approved intelligence consumers. It is my understanding that details concerning distribution of reports is now the subject of discussions between DIA and NSA.

In view of the requirements for mission reports to be distributed in the TK system and to afford the proper protection to operational information, there are several actions which need to be taken. They are:

1. A clear and early determination by USIB of the mission report recipients.

2. Determination of procedures for the inclusion or exclusion of operational or payload information in the end-product reports. Inclusion of such information could restrict distribution to recipients having BYEMAN operational clearance.

3. Establishment of systematic, centralized distribution of the TK ZARF reports.

I would be most interested in receiving details on the progress of arrangements directed toward these actions.

Joseph V. Charyk
Director
[illegible] National Reconnaissance Office

Distribution:
1 Addressee 4 SAFSS-1
2 NSA 5 SAFSS-1
3 SAFSS-6

cc: Lt Gen Blake, NSA

REGRADING; DOD DIR 5200.10
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Handle via BYEMAN
Control System

TOP SECRET

Tab X

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BYE 4301-62

NO: 116.1

DATE: November 20, 1961

SECRETARY OF THE AIR FORCE
ORDER

SUBJECT: The Director of Special Projects

1. Effective this date, Major General Robert E. Greer is designated as Director of Special Projects, OSAF, with additional duty as Vice Commander, Air Force Space Systems Division, AFSC, with duty station at 2400 East El Segundo Boulevard, El Segundo, California.

2. The Director will organize an office to manage designated space projects. A number of manpower spaces will be provided by my staff. Additional manpower spaces for the office will be drawn from resources available to the Air Force Systems Command. The Director and his key personnel will constitute a field extension of the Office of the Secretary of the Air Force.

3. The Director is responsible to and will report directly to the Secretary of the Air Force, and will manage and conduct designated projects exclusively in accordance with guidance received from this office.

4. Secretary of the Air Force Order No. 116.1, dated August 31, 1960, is hereby superseded.

Eugene M Zuckert

EUGENE M. ZUCKERT
Secretary of the Air Force

DEPARTMENT OF THE AIR FORCE
MCMXLVII
UNITED STATES OF AMERICA

NO: 116.1
DATE: JUL 19 1962

SECRETARY OF THE AIR FORCE
ORDER

SUBJECT: The Director of Special Projects

1. Effective 1 August 1962, Major General Robert E. Greer is designated as Director of Special Projects, OSAF, with additional duty as Deputy Commander for Satellite Programs, Space Systems Division, AFSC, with duty station at 2400 East El Segundo Boulevard, El Segundo, California.

2. The Director will organize an office to manage designated space projects. A number of manpower spaces will be provided by my staff. Additional manpower spaces for the office will be drawn from resources available to the Air Force Systems Command. The Director and his key personnel will constitute a field extension of the Office of the Secretary of the Air Force.

3. The Director is responsible to and will report directly to the Secretary of the Air Force, and will manage and conduct designated projects exclusively in accordance with guidance received from this office.

4. Secretary of the Air Force Order No. 116.1, dated November 20, 1961, is hereby superseded.

Eugene M. Zuckert

EUGENE M. ZUCKERT
Secretary of the Air Force

SAFSS

DEPARTMENT OF THE AIR FORCE
MCMXLVII
UNITED STATES OF AMERICA

NO: 116.1
DATE: 28 August 1969

SECRETARY OF THE AIR FORCE
ORDER

SUBJECT: The Office of Special Projects

1. The Director of Special Projects and his key personnel constitute a field extension of the Office of the Secretary of the Air Force. Their manpower spaces are provided by my staff. Additional manpower spaces are assigned by my direction from resources available to the Air Force Systems Command.

2. The Director is responsible to and reports directly to the Secretary of the Air Force, and manages and conducts designated projects exclusively in accordance with guidance received from this office. The Director will perform additional duty as Deputy Commander for Satellite Programs, Space and Missile Systems Organization, AFSC.

3. Secretary of the Air Force Order Number 116.1, dated July 19, 1962, is hereby superseded.

4. This Order is issued in accordance with Air Force Regulation 11-18, dated July 18, 1963, subject: Delegating or Assigning Statutory Authority.

ROBERT C. SEAMANS, JR.
Secretary of the Air Force

dupl

DATE: August 31, 1960

SECRETARY OF THE AIR FORCE

ORDER

SUBJECT: The Director of the SAMOS Project

1. Effective this date, Brigadier General Robert E. Greer, Assistant Chief of Staff for Guided Missiles, is designated as Director of the SAMOS Project, with additional duty as Vice Commander for Satellite Systems, AFBMD, ARDC, with duty station at 2400 East El Segundo Boulevard, El Segundo, California.

2. The Director will organize an office to manage the SAMOS Project. Manpower to staff the office will be drawn from manpower available to him as Vice Commander for Satellite Systems. The SAMOS Project Office will be a field extension of the Office of the Secretary of the Air Force.

3. The Director is responsible to and will report directly to the Secretary of the Air Force.

4. Additional duties may be assigned to the Director as deemed appropriate by the Secretary of the Air Force.

DUDLEY C. SHARP
Secretary of the Air Force

COPY